

## VII. Program Recommendations

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The bikeway projects and facility improvements recommended in the Bicycle Master Plan Update should be complemented by programs designed to educate people about bicyclists' rights and responsibilities and safe bicycle operation; connect current and future bicyclists to existing resources; encourage residents to bicycle more frequently; and monitor the performance of the bicycle system and programs.

This chapter outlines several potential programs the City could pursue, as well as programs the City currently provides and should continue. Recommendations presented in this chapter are divided into the following four categories: education programs, enforcement, encouragement programs, and monitoring and evaluation.

### Education Programs

This section covers future efforts to educate bicyclists and motorists, and efforts to increase the use of bicycles as a transportation alternative. Most education and encouragement programs and activities will likely be cooperative efforts between City of San Diego departments, San Diego Unified School District, and local bicycle organizations such as the San Diego County Bicycle Coalition.

#### *Continue and Expand Existing Education Programs*

The City should continue to offer its existing programs including the Pedestrian and Bicycle Safety Education Program and Safety and Traffic Education Program which are described in Chapter 3, and should seek secure, regular funding sources to continue to support these programs.

In prior years, the City of San Diego obtained funding to help support adult bicycling courses provided by San Diego County Bicycle Coalition (SDCBC) League of American Bicyclists Certified Instructors. While the focus of the Safety and Traffic Education Program is to raise awareness and promote safe interactions between all roadway user groups, there is also a need for cycling courses that provide in-depth training on topics such as riding in traffic skills and hazard avoidance techniques. Learning how to ride safely encourages people to ride more confidently, more often, and along more routes.

Adult bicycling courses can be made available to individual members of the public such as the series offered by the SDCBC and also to existing groups such as employees of a local business, City employees, and university or college students.

#### *Traffic Ticket Diversion Classes*

The City should consider offering education in the form of ticket diversion programs where traffic offenders can take a course in lieu of citations or fines or in exchange for fee reductions. Classes are geared toward motorists, bicyclists, and pedestrians who are violators of bicycle and pedestrian-related traffic violations. Participants learn about laws pertaining to bicycle and pedestrian traffic and receive instruction on how to safely interact with other

roadway user groups. Programs are frequently initiated through partnerships between city police or transportation departments and non-profit bicycle organization who conduct the trainings. These classes can be effective educational tools for people who demonstrate.

### *Safe Routes to School*

The City of San Diego has been successful in securing Safe Routes to School grant funds to improve walking and bicycling conditions surrounding various schools, particularly in Mid-City and Southeastern neighborhoods. Robust Safe Routes to Schools programs use a variety of strategies to improve safety and encourage walking and bicycling to school. These strategies are often referred to as the “Four Es.”

- Education: programs designed to teach children about traffic safety, bicycle and pedestrian skills, and traffic decision-making.
- Encouragement: programs that make it fun for kids to walk and bike. These programs may be challenges, incentive programs, regular events (e.g. “Walk and Bike Wednesdays”) or classroom activities.
- Engineering (Design): physical projects that are built to improve walking and bicycling conditions.
- Enforcement: law enforcement strategies to improve driver behavior near schools.

Programs generally address the safety concerns of parents by encouraging greater enforcement of traffic laws, educating the public, and redesigning streets to be safer. Identifying and improving routes for children to walk or bicycle to school is one of the most effective means of reducing morning traffic congestion and addressing existing safety problems. Safe Routes to School efforts also promote health by encouraging active transportation. School commute programs that are joint efforts of the City, school district, with parent organizations adding an important element, are usually most effective.

The City should continue to pursue Safe Routes to School efforts and encourage schools in San Diego to conduct individual evaluations of school commute patterns, work with the City to identify corridor and crossing improvements within walking and biking distance of the school, and to identify improvements to the drop-off/pick-up system. School commute routes are local in nature and require extensive and detailed examination of patterns and conditions and local input. The Safe Routes to School program should continue to actively involve students’ parents and should focus on making it safer for students to bicycle and walk to school.

## **Enforcement**

In order to encourage safe cycling in San Diego, facility improvements must be accompanied by enforcement of California Vehicle Code regulations pertaining to bicycling. The City of San Diego currently enforces bicycle-related violations of the California Vehicle Code.

## ***Support Police Department in Enforcement Efforts***

The City of San Diego Police Department should continue to perform enforcement of vehicle statutes relating to bicycle operation. A particular focus should be on obstructions of bicycle facilities, individuals riding the wrong direction, or riding on the sidewalk, as these behaviors increase the chance that a cyclist will be involved in a collision. Enforcement of vehicle laws related to bicycling can serve as an educational tool, as some individuals may simply not understand that they are breaking the law and putting themselves at risk. The Police Department also offers online education “Safety Sam,” geared toward children and traffic safety. The Police Department should consider attending local bicycle rodeos coordinated by non-profit and other organizations to answer questions and show support for the events (The Police Department enforcement and program efforts are briefly described in Chapter 3, Section 3, Education, Awareness and Enforcement Programs).

## **Encouragement Programs**

Encouragement programs are vital to the success of the San Diego bicycle system. Encouragement programs’ primary purpose is to persuade people to shift from driving to bicycling, which helps reduce traffic congestion and air pollution, as well as improve the quality of life in San Diego. Community support is needed to ensure the long-term success of encouragement programs. Strategies for community involvement will be important to ensure broad-based support – which translates into political support – to help secure financial resources. Involvement by the private sector in raising awareness of the benefits of bicycling can range from small incremental activities by non-profit groups, to efforts by the largest employers in the City. Specific programs are described below.

### ***Bicycling Information Website***

The City’s website should include a bicycling information site that provides information about safety, reporting roadway and bikeway problems, the Bicycle Master Plan, bicycle facility construction updates, and links to other local resources, including the SANDAG iCommute website, local bicycling groups, classes, and events.

### ***Bike Commuter Challenge Program***

The City should consider developing a bike commute challenge program modeled after the Oregon-based Bicycle Transportation Alliance Bike Commute Challenge. These programs engage workplaces and employees in a friendly competition to see who can document the most bicycling or walking trips taken for commuting or other utilitarian purposes. Registration and trip tracking should be managed in a user-friendly online interface. Winners could be announced to the press during an annual wrap-up celebration. This program would complement the SANDAG iCommute Diamond Awards which honors organizations and individuals in the region that promote alternative travel options such as vanpooling, carpooling, use of public transit, walking, and biking and the iCommute Week Carpool Challenge.

### ***Bike-to-Work and Bike-to-School Days***

The City of San Diego should continue to participate in the annual Bike-to-Work day in May, in conjunction with the California bike-to-work week activities. City staff can host “energizer” stations along key local commuter routes. The City should also consider working with local schools and sponsoring or supporting local Walk and Bike to School days held annually in conjunction with schools’ programs. This should include the International Walk and Bike to School Day, held in early October each year.



### ***Sunday Parkways***

Sunday Parkways, or ciclovías, are periodic street closures (usually held on Sundays) that create a temporary park that is open to the public for bicycling, walking, roller skating, dancing etc. They have been very successful at raising enthusiasm for alternative travel modes internationally and are gaining popularity in the US. The City of San Diego should consider working with local organizations to institute Sunday Parkways.



Sunday Parkways in Portland, Oregon

## **Monitoring and Evaluation**

Monitoring and evaluating a city’s progress toward becoming bicycle-friendly is critical to ensuring that programs and facilities are effective and to understanding changing needs. Maintaining consist staff positions, count programs, reporting on progress, and convening advisory committees are methods for monitoring efforts and for holding agencies accountable to the public.

### ***Fund a City Bicycle Coordinator Position***

To assist with implementation of the many projects and programs recommended in this chapter, the City should consider reinstating the full-time Bicycle Coordinator position, along with the City Bicycle Project Manager position. While staffing a full-time bicycle coordinator position may not currently be feasible for San Diego from a budgetary standpoint, this should be a long-term goal to ensure significant staff time is available to administer and advance the City’s programmatic efforts. The job duties for this staff person would include overseeing future Bicycle Master Plan updates, coordinating a Bicycle Advisory Committee and administering the program recommendations listed here as well as expanding on these programs in the future.

### ***Convene a Bicycle Advisory Committee***

Create a Bicycle Advisory Committee (BAC) that will coordinate with various City agencies, schools, neighboring cities, SANDAG, community planning groups, and community organizations, and will provide input on bicycle issues in San Diego. The BAC should be composed of representatives from bicycling organizations, such as the San Diego County Bicycle Coalition, bicycle shops, riding clubs, transportation agencies, universities, colleges

and community members at-large in order to provide perspective from a broad cross-section of the bicycling community.

### *Count Program and Annual Report*

The City should collect bicycle and pedestrian counts annually as a part of a regional effort to record bicycle and pedestrian activity levels. The bicycle and pedestrian count program should be administered annually and capture all types of bicycle and pedestrian trips including trips for recreation, commuting to work and for other utilitarian purposes. Bicycle and pedestrian counts and assessments should also be conducted whenever a local land development project requires a traffic impact study. A long-term financing source should be identified to guarantee the longevity of the program.

It is also recommended that the City participate in the National Bicycle & Pedestrian Documentation Project by following the data collection model and submitting data collected to contribute to this growing source of national data on bicycle and pedestrian usage. The City should also consider publishing or working with local agencies to produce bi-annual or periodic report cards similar to the San Francisco State of Cycling Report to document the City's progress toward increasing bicycle activity.



## VIII. Implementation and Funding

This chapter is intended to support the implementation of this Plan's recommendations by providing the following information:

- An overview of bicycle-related expenditures between 2006 and 2009
- Planning level cost estimates for the entire proposed unbuilt network
- Detailed cost estimates for the 40 high priority projects
- Cost estimates for maintenance and operations
- An overview of funding sources that the City should pursue

### Previous Bicycle-Related Expenditures

The City of San Diego has had several projects funded over the past four years. **Table 8.1** identifies specific projects funded since the year 2006, the communities in which they are located, and the amounts of the expenditures.

**Table 8.1: City of San Diego Expenditures for Bikeways, 2006-2009**

Project	Communities	Amount
54th Street and Euclid Avenue Bike Lanes and Routes	Southeastern San Diego, College Area	\$130,000
Bayshore Bikeway	Otay Mesa/Nestor	\$5,195,274
Beyer/East Beyer Boulevard Bikeway	San Ysidro	\$66,000
Bicycle Parking at the Border	San Ysidro	\$23,300
Bicycle Safety and Commuting Education Program	Citywide	\$1,365,994
Camino de la Reina Bikeway	Mission Valley	\$259,339
Camino del Rio North Bike Lanes	Mission Valley	\$416,000
City Bicycle Master Plan	Citywide	\$150,000
Coastal Rail Trail	Torrey Pines, University	\$22,016,138
Darkwood Canyon Connector Study for SR-56 Bike Path	Rancho Penasquitos	\$50,000
Fairmont Avenue/Camino del Rio South Traffic Signal and Striping Modifications	College Area	\$86,000
Friars Road to Pacific Highway Bike Path	Linda Vista, Mission Valley	\$714,518
Interstate 805 Bike Path Study	Mira Mesa	\$40,000
Island Avenue/Market Street Bikeway	Southeastern San Diego	\$115,000
Kearny Villa Road Bike Lane Improvements	Kearny Mesa	\$300,000
Minor Bicycle Facilities	Citywide	\$15,000
Mission Trails Bike Path Study	Mission Trails Regional Park, Navajo	\$100,000
Ocean Beach Bike Path/Hotel Circle North Bikeway Design	Mission Valley, Ocean Beach	\$2,550,000
Pacific Highway and Barnett Avenue Interchange Study	Peninsula	\$40,000
Poway Road - Class I Bicycle Lane	Sabre Springs	\$1,293,000
Rancho Bernardo Bikeway	Rancho Bernardo	\$250,000
Rose Creek Bikeway	Mission Bay Park, Pacific Beach	\$5,100,000

**Table 8.1: City of San Diego Expenditures for Bikeways, 2006-2009**

Project	Communities	Amount
Safety in Traffic Education Program (STEP)	Citywide	\$20,000
San Diego River Bike Path – Bridge Study	Mission Valley	\$50,000
San Diego River Bike Path - Mission Trails to Mission Bay	Mission Valley, Navajo	\$276,500
San Diego River Multi-Use Path	Mission Valley	\$827,999
San Pasqual Road Bikeway Study	San Pasqual Valley	\$50,000
State Route 15 Bikeway	Mid-City	\$1,003,869
State Route 52 Bike Path Study	University, Clairemont Mesa	\$131,568
State Route 56 Bike Interchanges	Rancho Penasquitos, Pacific Highlands Ranch, Del Mar Mesa, Torrey Highlands, Black Mountain Ranch	\$11,277,000
Taylor Street – Bikeway	Old San Diego	\$250,000
Traffic Safety and Education Program	Citywide	\$50,000
University Avenue at Alabama Street Bicycle and Pedestrian Safety Improvements	Greater North Park	\$120,000
Via de la Valle Bikeway	Via de la Valle	\$1,684,950
Vista Sorrento Parkway Bike Lanes	Mira Mesa, Torrey Pines	\$607,500

*Source: City of San Diego Website, <http://www.sandiego.gov/fm/annual/index.shtml>*

## Cost Estimate for the Proposed Unbuilt Network

**Table 8.2** summarizes cost estimates for all unbuilt proposed bicycle network recommended in this Plan. Unit cost estimates were obtained from the draft 2010 San Diego Regional Bicycle Plan. The cost of completing the proposed bicycle network is estimated to be about \$259 million for Class I bike path projects, \$3.4 million for Cycle Track projects, \$56 million for Class II bike lane and Class III bike route projects, and \$5 million for Bicycle Boulevard projects, for a combined total system build out cost of about \$323 million. Cost estimates include costs for survey and design, construction, administration and contingencies.



**Table 8.2: Proposed Bicycle Network Cost Estimates**

Facility Type	Unit Cost*	Miles of Unbuilt Proposed	Total Cost Estimate per Facility Type
Class I – Bike Path	\$2,640,000	98.1	\$258,984,000
Class II – Bike Lane	\$30,000	41.3	\$1,461,000
Class II – Bike Lane w/ Issues	\$273,000	48.7	\$1,461,000
Class III – Bike Route	\$14,800	166.3	\$2,461,240
Class II or III (TBD)	\$273,000	147.7	\$40,322,100
Bicycle Boulevard	\$124,000	39.8	\$4,939,180
Cycle Track	\$451,200	7.6	\$3,429,120
<b>Total</b>	--	<b>549.5</b>	<b>\$322,871,540</b>

*Source: Alta Planning + Design, March 2010*

*Note: \* Unit costs were obtained from the draft 2010 San Diego Regional Bicycle Plan (Table 6.2).*

## 40 Top Priority Project Cost Estimates


**Table 8.3** displays cost estimates for the 40 Top Priority Bicycle Projects. As shown, the total cost for implementation of these projects would be approximately \$29 million dollars. The following 40 Top Priority Project Sheets provide a project description, related issues, and the cost estimate for each of the 40 Top Priority Bicycle Projects.

**Table 8.3: 40 Top Priority Project Cost Estimates**

Project Number	Project Description	Cost
1	Park Boulevard: Village Place to B Street	\$1,095,279
2	Upas Street: Park Boulevard to Florida Street; and Park Boulevard: Upas Street to Village Place	\$622,059
3	C Street: India Street to 19 <sup>th</sup> Avenue	\$34,056
4	University Avenue: 1st Avenue to 5th Avenue; and 5th Avenue: University Avenue to Laurel Street	\$129,818
5	Mission Valley to University Avenue Connection	\$32,901
6	Linda Vista to Pacific Highway Connection	\$2,519,885
7	El Cajon Boulevard: Utah Street to 43rd Street; and 43rd Street: Meade Avenue to El Cajon Boulevard	\$291,675
8	West Ash Street: North Harbor Drive to Kettner Boulevard; and Ash Street: 3 <sup>rd</sup> Avenue to 8 <sup>th</sup> Avenue	\$14,087
9	A Street: India Street to 8 <sup>th</sup> Avenue	\$9,532
10	Washington Street: University Avenue to Normal Street; Normal Street: Washington Street to Park Boulevard; and Park Boulevard: El Cajon Boulevard to Madison Avenue	\$1,060,251
11	54 <sup>th</sup> Street: Montezuma Road to El Cajon Boulevard; and Collwood Boulevard: Monroe Avenue to 54 <sup>th</sup> Street	\$28,218
12	5 <sup>th</sup> Avenue: Laurel Street to Harbor Drive	\$30,235
13	Villa La Jolla Drive: Gilman Drive (N) to Gilman Drive (S)	\$540,669
14	4th Avenue: Washington Street to Juniper Street	\$23,741
15	Cedar Street: Pacific Highway to 8th Avenue	\$49,820
16	University Avenue: Texas Street to Fairmont Avenue; 43 <sup>rd</sup> Street: El Cajon Boulevard to University Avenue; and Fairmont Avenue: Meade Avenue to University Avenue	\$395,487
17	La Jolla Village Drive: Regents Road to I-805 NB On-ramp; and Judicial Drive: La Jolla Village Drive to Golden Haven Drive	\$1,221,990
18	Texas Street: Madison Avenue to University Avenue; University Avenue: Florida Street to Texas Street; and Florida Street: University Avenue to Upas Street	\$287,739
19	Mira Mesa Boulevard: Parkdale Avenue to Reagan Road; and Mira Mesa Boulevard: Marbury Avenue to I-15	\$843,554
20	K Street: 3 <sup>rd</sup> Avenue to 7 <sup>th</sup> Avenue; and K Street: 10 <sup>th</sup> Avenue to 14 <sup>th</sup> Street	\$28,831
21	Marina District to East Village – Along G Street, Market Street, and Island Avenue	\$58,546
22	India Street: Washington Street to West C Street	\$250,124
23	State Street: Laurel Street to West G Street	\$24,430
24	Bayshore Bikeway: Embarcadero Path to National City city limit	\$836,140
25	Ruffin Road: Kearny Villa Road to Aero Drive	\$508,807
26	El Cajon Boulevard: 43rd Street to Montezuma Road	\$318,551
27	La Jolla Village Drive: Gilman Drive to Regents Road	\$212,391
28	Sassafras Street: Pacific Highway to India Street; and Pacific Highway: Sassafras Street to Harbor Drive	\$3,487,441
29	8th Avenue: Date Street to J Street	\$52,966
30	University Avenue: Fairmont Avenue to La Mesa city limit	\$583,371
31	Mission Boulevard: Grand Avenue to West Mission Bay Drive	\$237,224
32	Sports Arena Boulevard: Ocean Beach Bike Path to Pacific Highway; and Pacific Highway: Sports Arena Boulevard to Sassafras Street	\$3,372,548
33	Mission Boulevard: Turquoise Street to Grand Avenue	\$108,373
34	6th Avenue: Upas Street to Harbor Drive	\$315,225
35	Main Street: Cesar E. Chavez Parkway to 26 <sup>th</sup> Street; 26 <sup>th</sup> Street: Boston Avenue to Main Street; and Boston Avenue: 26 <sup>th</sup> Street to 32 <sup>nd</sup> Street	\$144,794
36	Morena Boulevard: Gesner Street to Tecolote Road; and West Morena Boulevard: Morena Boulevard to Linda Vista Road	\$289,267
37	14 <sup>th</sup> Street: C Street to Commercial Street; National Avenue: Commercial Street to Cesar E. Chavez Parkway; and Cesar E. Chavez Parkway: National Avenue to Harbor Drive	\$50,744
38	Mission Valley San Diego River Bike Path	\$6,244,528
39	San Ysidro Boulevard: Dairy Mart Road to the southern terminus of San Ysidro Boulevard	\$222,157
40	Pacific Beach to Rose Creek	\$2,174,419
<b>Total High Priority Project Costs</b>		<b>\$28,751,873</b>

*Source: Alta Planning + Design, February 2010*

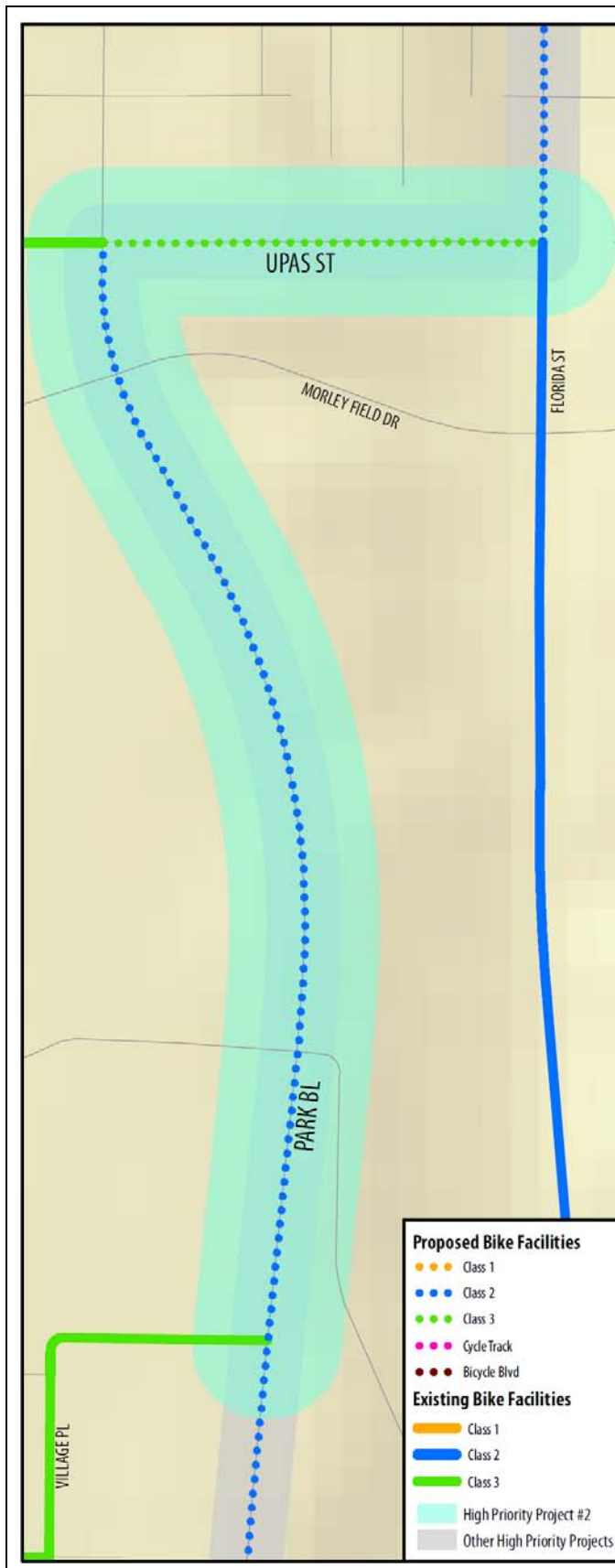
## Project 1 – Park Boulevard: Village Place to B Street

	Project Description	
	<p>This project serves bicycle demands between Balboa Park and Centre City by providing Class II bicycle facilities along Park Boulevard from Village Place in Balboa Park to B Street in downtown San Diego.</p> <p>This high priority project is over a mile long and connects the relatively dense residential neighborhoods of Hillcrest and North Park to key downtown land uses, such as major employment and shopping centers, San Diego City College, and recreational and cultural land uses in Balboa Park. This bike facility follows portions of local bus Route 7 and provides connections to local bus Route 923 and the Blue Line and Orange Line City College trolley station.</p> <p>Bicycling issues along this project corridor include relatively high travel speeds of approximately 40 mph, a difficult freeway crossing at I-5, and difficult topography on the north side of I-5. This segment has also had five reported bike crashes from 2002-2007, including two crashes at the Park Boulevard/SB I-5 Ramps intersection.</p> <p>This high priority project ranked 1<sup>st</sup> of the top 40 with an average weighted prioritization score of 22.9 points.</p>	
	<th data-bbox="852 1129 1513 1176">Proposed Improvements</th> <ul data-bbox="876 1186 1494 1848" style="list-style-type: none"> <li>Remove traffic striping (12,760 LF @ \$1.65/LF)</li> <li>Remove Asphalt Concrete (8,932 SF @ \$7/SF)</li> <li>Remove Concrete Curb (8,932 LF @ \$15/LF)</li> <li>Remove Concrete Sidewalk (1,500 SF @ \$8/SF)</li> <li>Install Asphalt Pavement (661 tons @ \$120/ton)</li> <li>Install Concrete Curb (8,932 LF @ \$30/LF)</li> <li>Install Concrete Paving (19 CY @ \$1,000/CY)</li> <li>Roadside Signage (15 signs @ \$400/EA)</li> <li>Class II and traffic striping (38,280 LF @ \$1/LF)</li> <li>Class II pavement markings (16 markings @ 14 SF/marking = 224 SF @ \$5/SF)</li> <li>Lighting (11 street lights \$3,000/EA)</li> <li>Install Bicycle Detector Loops (10 detectors @ \$1,000/EA)</li> </ul> <th data-bbox="852 1858 1513 1900">Cost</th> <p data-bbox="876 1911 1494 1961">\$1,095,279</p>	Proposed Improvements

## Project 1 – Cost Estimate

Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS) 10%	\$70,210
2	Remove Traffic Stripe (LF)	\$21,054
3	Remove Asphalt Concrete (SF)	\$62,524
4	Remove Concrete Curb (LF)	\$151,844
5	Remove Concrete Sidewalk (SF)	\$12,000
6	Asphalt Pavement (Ton)	\$79,320
7	Minor Concrete (Curb and Gutter) (LF)	\$267,960
8	Minor Concrete (Island Paving)	\$19,000
9	Roadside Sign - One Post (EA)	\$6,000
10	Paint Traffic Stripe - Two Coat (LF)	\$38,280
11	Paint Pavement Marking - Two Coat (SF)	\$1,120
12	Lighting (City Street)	\$33,000
13	Bicycle Detector Loop	\$10,000
14	Mobilization (LS) 10%	\$70,210
Subtotal		\$842,522
Contingency (30%)		\$252,757
<b>Total Construction</b>		<b>\$1,095,279</b>

## Project 2 – Upas Street: Park Boulevard to Florida Street and Park Boulevard: Upas Street to Village Place



### Project Description

This project serves bicycle demands between the Mid-City communities of North Park and Balboa Park by providing Class III bicycle facilities on Upas Street from Park Boulevard to Florida Street in North Park, and Class II bicycle facilities on Park Boulevard from Upas Street to Village Place in Balboa Park.

This high priority project is nearly a mile long and connects the relatively dense residential neighborhoods of Hillcrest and North Park with Balboa Park and key downtown land uses, including major employment and shopping centers, and San Diego City College. This project follows portions of local bus Route 7.

Bicycling issues along this project corridor include relatively high travel speeds of 40 mph along Park Boulevard and difficult topography along Upas Street. This segment has also had eight reported bike crashes from 2002-2007, including four crashes at the intersection of Park Boulevard and Morley Field Drive.

This high priority project ranked 2<sup>nd</sup> of the top 40 with an average weighted prioritization score of 21.5 points.

### Proposed Improvements

- Remove traffic stripe (6,060 LF @ \$1.65/LF)
- Remove asphalt concrete (5,454 SF @ \$7/SF)
- Remove concrete curb (5,454 LF @ \$17/LF)
- Install asphalt pavement (338 tons @ \$120/ton)
- Install concrete curb (5,454 LF @ \$30/LF)
- Roadside signage (12 signs @ \$400/EA)
- Class II and traffic striping (18,180 LF @ \$1/LF)
- Class II pavement marking (8 markings @ 14 SF/marking = 112 SF @ \$5/SF)
- Class III pavement marking (2 markings @ 14 SF/marking = 28 SF @ \$5/SF)
- Lighting (10 street lights @ \$3,000/EA)
- Bicycle Detector Loop (6 @ \$1,000 EA)

### Cost

\$622,059

## Project 2 – Cost Estimate

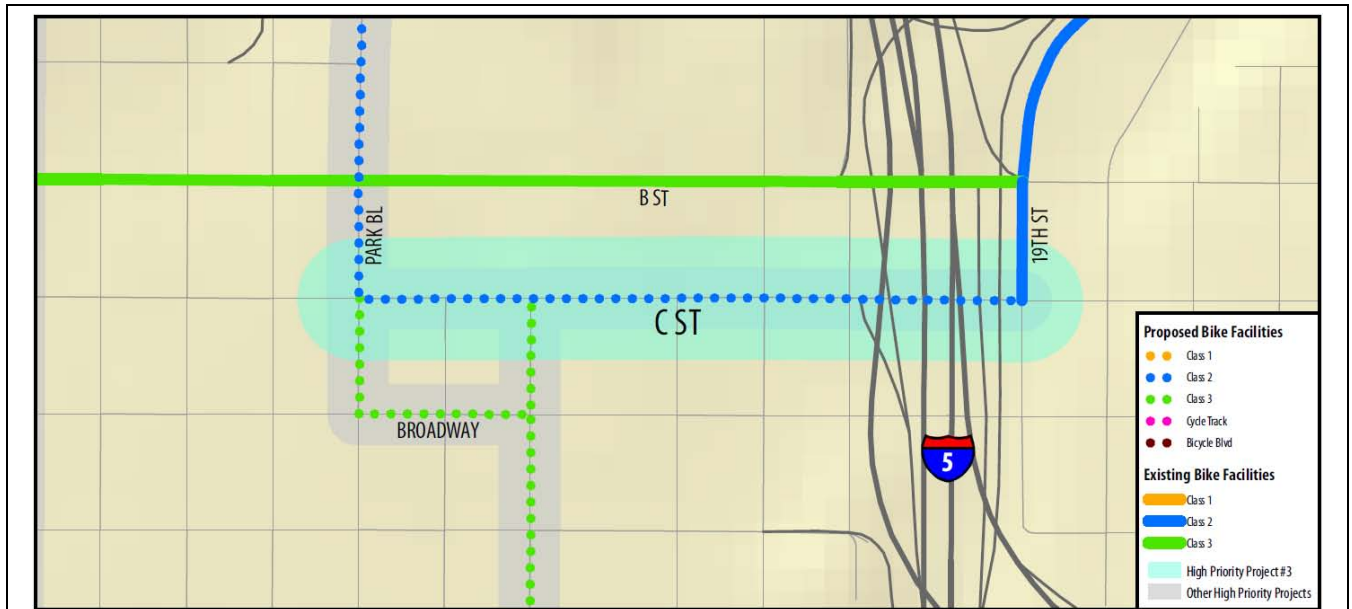
Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS) 10%	\$36,876
2	Remove Traffic Stripe (LF)	\$9,999
3	Remove Asphalt Concrete (SF)	\$38,178
4	Remove Concrete Curb (LF)	\$92,718
5	Asphalt Pavement (Ton)	\$40,560
6	Minor Concrete (Curb and Gutter) (LF)	\$163,620
7	Roadside Sign - One Post (EA)	\$4,800
8	Paint Traffic Stripe - Two Coat (LF)	\$18,180
9	Paint Pavement Marking - Two Coat (SF)	\$700
10	Lighting (City Street)	\$30,000
11	Bicycle Detector Loop	\$6,000
12	Mobilization (LS)	\$36,876

Subtotal \$478,507

Contingency (30%) \$143,552

**Total Construction \$622,059**

## Project 3 – C Street: Park Boulevard to 19<sup>th</sup> Avenue



### Project Description

This project serves bicycle demands between Centre City and Greater Golden Hill by providing Class II bicycle lanes along C Street from Park Boulevard in downtown to 19<sup>th</sup> Street in Golden Hill.

This high priority project is approximately a half mile long and connects the high density office uses of Centre City to the residential areas in East Village and Golden Hill. This bike facility provides connections to the Blue Line and Orange Line trolley, as well as express bus Routes 30, 50, and 150.

Bicycling issues along this project corridor include a difficult freeway crossing at I-5 and one reported bike crash from 2002-2007. Posted traffic speeds of 25 mph and volumes of 4,800 to 10,700 ADTs are generally amenable to bicycle travel.

This high priority project ranked 3<sup>rd</sup> of the top 40 with an average weighted prioritization score of 21.4 points.

### Proposed Improvements

- Remove traffic striping (4,380 LF @ \$1.65/LF)
- Roadside signage (6 signs @ \$400/EA)
- Class II and traffic striping (10,950 LF @ \$1/SF)
- Class II pavement markings (6 markings @ 14 SF/EA = 84 SF @ \$5/SF)
- Bicycle Detector Loop (1 @ \$1,000/EA)

### Cost

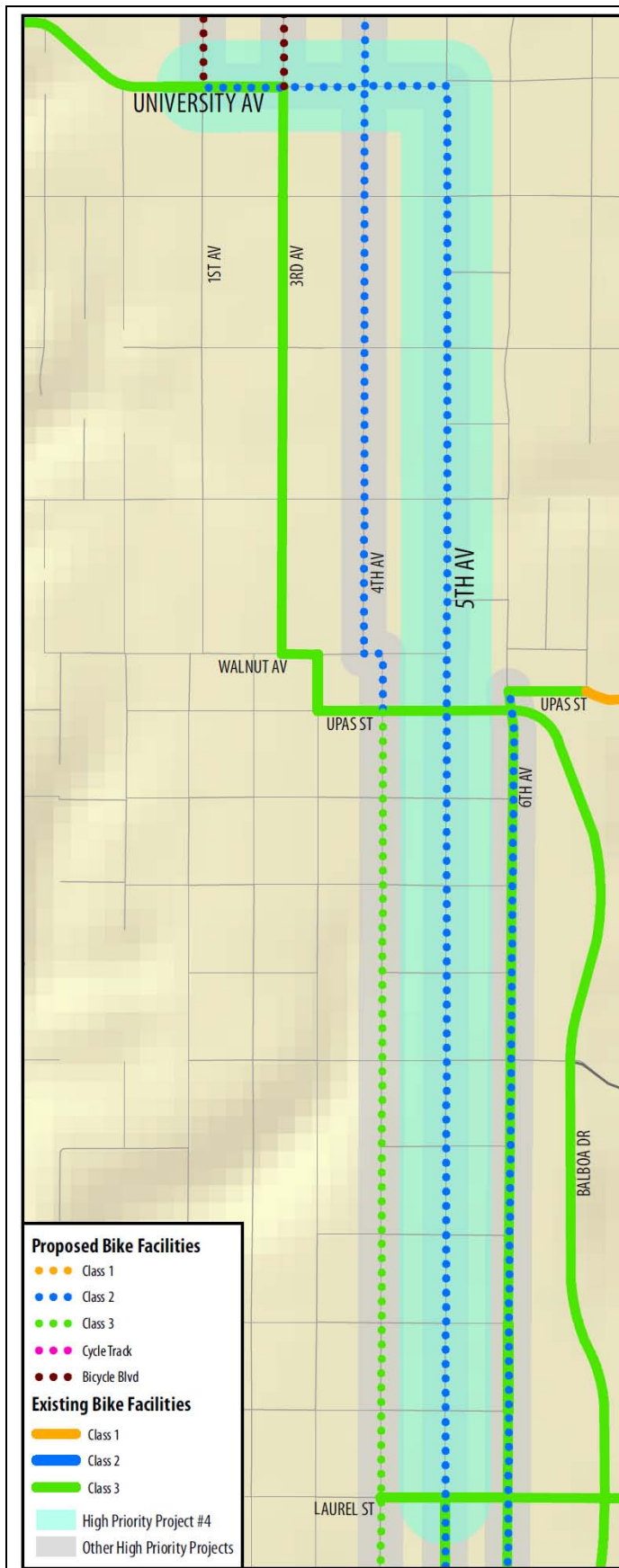
\$34,056

### Project 3 – Cost Estimate

Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS) 10%	\$2,100
2	Remove Traffic Stripe (LF)	\$7,227
3	Roadside Sign - One Post (EA)	\$2,400
4	Paint Traffic Stripe - Two Coat (LF)	\$10,950
5	Paint Pavement Marking - Two Coat (SF)	\$420
6	Bicycle Detector Loop (EA)	\$1,000
7	Mobilization (LS) 10%	\$2,100
Subtotal		\$26,197
Contingency (30%)		\$7,859
<b>Total Construction</b>		<b>\$34,056</b>



## Project 4 – University Avenue: 1<sup>st</sup> Avenue to 5<sup>th</sup> Avenue and 5<sup>th</sup> Avenue: University Avenue to Laurel Street



### Project Description

This project serves bicycle demands through the Uptown communities of Hillcrest and Park West by upgrading the existing Class III bicycle lanes to Class II facilities along University Avenue from 1<sup>st</sup> Avenue to 5<sup>th</sup> Avenue, and by providing Class II bicycle lanes along 5<sup>th</sup> Avenue from University Avenue to Laurel Street.

This high priority project is over a mile long and connects dense residential neighborhoods in Hillcrest and Park West to key land uses such as Balboa Park. This bike facility follows portions of local bus Routes 1, 3, 10, 11, and express bus Route 120, and provides connections with local bus Route 83.

Bicycling issues along this project corridor include a high number of reported bike crashes from 2002-2007. Of the twenty total crashes, five were at the intersection of 5<sup>th</sup> Avenue and Laurel Street.

This high priority project ranked 4<sup>th</sup> of the top 40 with an average weighted prioritization score of 21.1 points.

### Proposed Improvements

- Remove traffic stripe (14,240 LF @ \$1.65/LF)
- Roadside signage (20 signs @ \$400/EA)
- Class II and traffic striping (34,520 LF @ \$1/LF)
- Class II pavement marking (20 markings @ 14 SF/marking = 280 SF @ \$5/SF)
- Bicycle Detector Loop (14 @ \$1,000/EA)

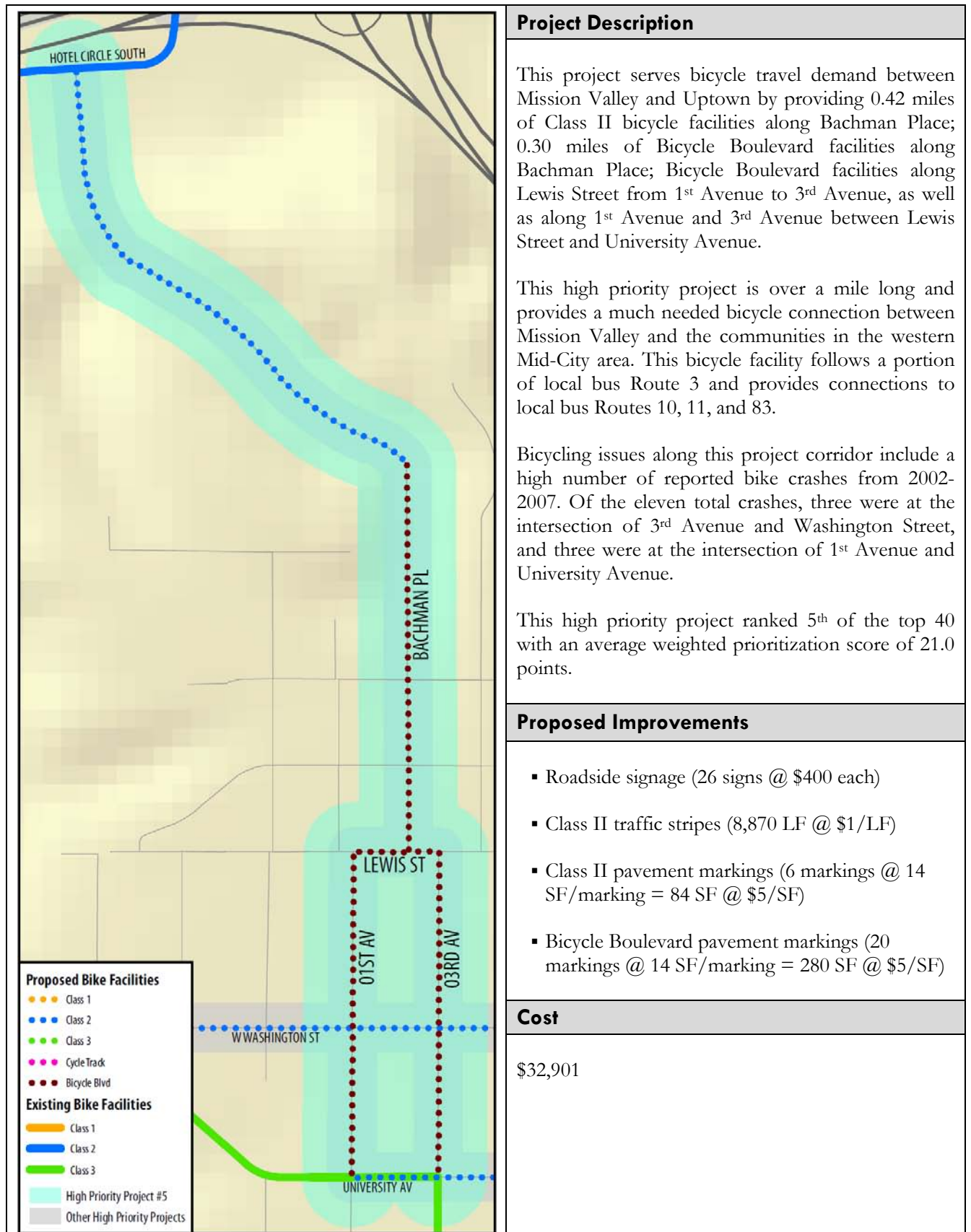
### Cost

\$129,818

## Project 4 – Cost Estimate

Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS) 10%	\$8,142
2	Remove Traffic Stripe (LF)	\$23,496
8	Roadside Sign - One Post (EA)	\$8,000
9	Paint Traffic Stripe - Two Coat (LF)	\$34,520
10	Paint Pavement Marking - Two Coat (SF)	\$1,400
11	Bicycle Detector Loop	\$14,000
12	Mobilization (LS) 10%	\$8,142
Subtotal		\$97,700
Contingency (30%)		\$29,310
<b>Total Construction</b>		<b>\$127,010</b>

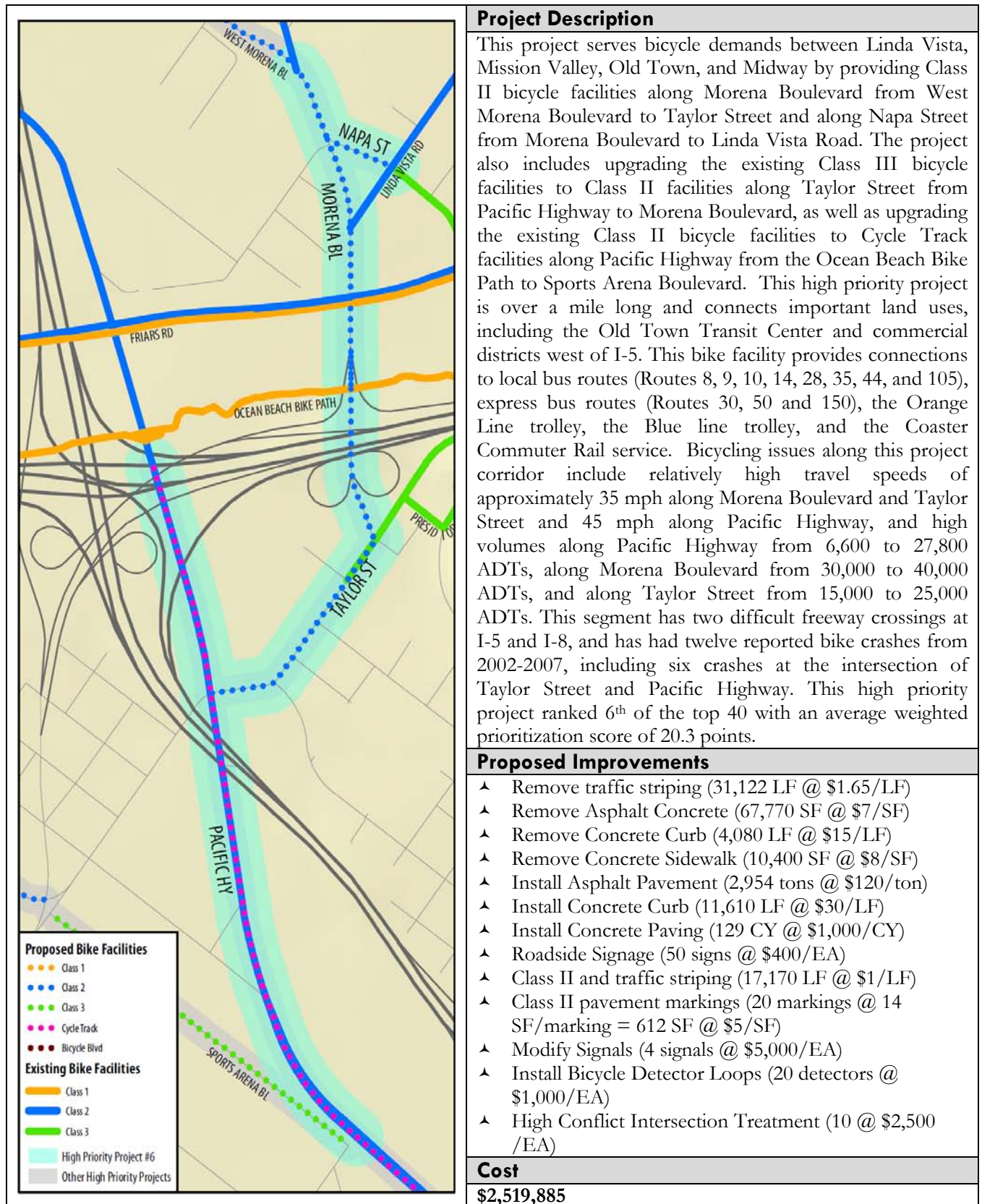
## Project 5 – Mission Valley to University Avenue Connection



### Project 5 – Cost Estimate

Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS)	\$2,109
2	Roadside Sign (EA)	\$10,400
3	Paint Traffic Stripe - Two Coat (LF)	\$8,870
4	Paint Pavement Marking - Two Coat (SF)	\$1,820
5	Mobilization (LS)	\$2,109
Subtotal		\$25,308
Contingency (30%)		\$7,593
<b>Total Construction</b>		<b>\$32,901</b>

## Project 6 – Linda Vista to Pacific Highway Connection



## Project 6 – Cost Estimate

Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS) 10%	\$161,531
2	Remove Traffic Stripe (LF)	\$51,351
3	Remove Asphalt Concrete (SF)	\$474,390
4	Remove Concrete Curb (LF)	\$69,360
5	Remove Concrete Sidewalk (SF)	\$83,200
6	Asphalt Pavement (Ton)	\$354,480
7	Roadside Sign - One Post (EA)	\$20,000
8	Minor Concrete (Curb and Gutter) (LF)	\$348,300
9	Minor Concrete Sidewalk 4" (CY)	\$129,000
10	Paint Traffic Stripe - Two Coat (LF)	\$17,170
11	Paint Pavement Marking - Two Coat (SF)	\$3,060
12	Bicycle Detector Loop (EA)	\$20,000
13	Modify Signal (EA)	\$20,000
14	High Conflict Treatment	\$25,000
15	Mobilization (LS) 10%	\$161,531

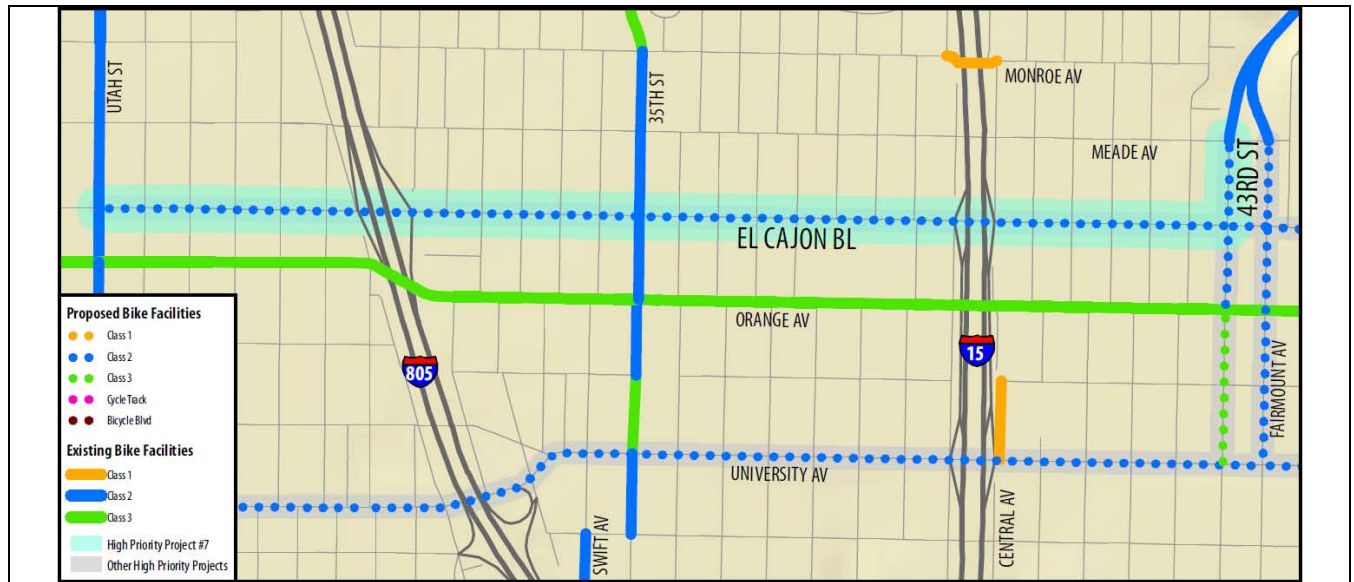
Subtotal \$1,938,373

Contingency (30%) \$581,512

**Total Construction** **\$2,519,885**



## Project 7 – El Cajon Boulevard: Utah Street to 43<sup>rd</sup> Street and 43<sup>rd</sup> Street: Meade Avenue to El Cajon Boulevard



### Project Description

This project serves bicycle demands through North Park, City Heights, Normal Heights, and Kensington by providing a Class II bicycle facility on El Cajon Boulevard from Utah Street to 43<sup>rd</sup> Street and a Class III bicycle facility along 43<sup>rd</sup> Street from Meade Avenue to El Cajon Boulevard.

This high priority project is nearly two miles long and connects the residential and commercial districts of North Park to those in Kensington and to key land use destinations including San Diego State University. This bike facility follows portions of local bus Routes 1, 6, 13, 15, and 966, and provides connections to local bus Route 2 and express bus Routes 210 and 960.

Bicycling issues along the El Cajon Boulevard portion of this project corridor include high travel speeds of 30 to 40 mph and high traffic volumes from 23,000 to 36,000 ADTs. 43<sup>rd</sup> Street also has a high posted travel speed of 30 mph and traffic volumes of approximately 23,500 ADTs. This segment has had an extremely high number of reported bike crashes from 2002-2007. Of the thirty-eight total crashes, several intersections counted three crashes each, including the El Cajon Boulevard/35<sup>th</sup> Street intersection and the El Cajon Boulevard/I-805 Ramps intersection. There are also difficult freeway crossings at the I-15 and at the I-805.

This high priority project ranked 7<sup>th</sup> of the top 40 with an average weighted prioritization score of 20.3 points.

### Proposed Improvements

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>▪ Remove traffic striping (37,340 LF @ \$1.65/LF)</li> <li>▪ Roadside signage (54 signs @ \$400/EA)</li> <li>▪ Class II and traffic striping (73,980 LF @ \$1/LF)</li> </ul> | <ul style="list-style-type: none"> <li>▪ Class II pavement markings (52 markings @ 14 SF/EA = 728 SF @ \$5/SF)</li> <li>▪ Class III pavement markings (2 markings @ 14 SF/EA = 28 SF @ \$5/SF)</li> <li>▪ Bicycle detector loop (26 @ \$1,000/EA)</li> </ul> |
|---|--|

### Cost

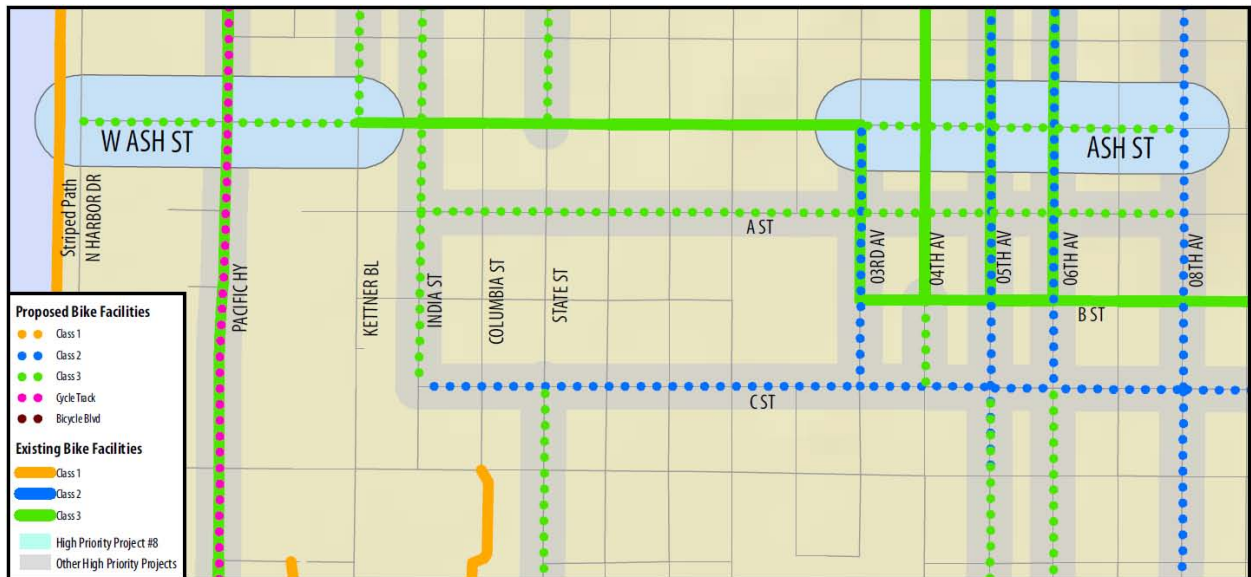
\$291,675

## Project 7 – Cost Estimate

Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS) 10%	\$18,697
2	Remove Traffic Stripe (LF)	\$61,611
3	Roadside Sign - One Post (EA)	\$21,600
4	Paint Traffic Stripe - Two Coat (LF)	\$73,980
5	Paint Pavement Marking - Two Coat (SF)	\$3,780
6	Bicycle Detector Loop (EA)	\$26,000
7	Mobilization (LS) 10%	\$18,697
Subtotal		\$224,365
Contingency (30%)		\$67,310
<b>Total Construction</b>		<b>\$291,675</b>



## Project 8 – West Ash Street: North Harbor Drive to Kettner Boulevard and Ash Street: 3<sup>rd</sup> Avenue to 8<sup>th</sup> Avenue



### Project Description

This project serves bicycle demands between the Little Italy and Cortez Hill communities of Centre City by providing Class III bicycle facilities along West Ash Street from North Harbor Drive to Kettner Boulevard and along Ash Street from 3<sup>rd</sup> Avenue to 8<sup>th</sup> Avenue.

This high priority project is a half-mile long and connects Centre City residential neighborhoods to the existing Class I bicycle path along the harbor. It also provides connections between key downtown land uses including major employment, shopping, and tourist attractions. This project provides access to local bus routes (Routes 2, 3, 83, and 923), express bus routes (Routes 20, 120, and 210), premium express routes (Routes 810, 820, 850, and 860), the Blue Line trolley line and the Coaster commuter rail.

Bicycling issues along this project corridor include five reported bike crashes from 2002-2007. Posted traffic speeds of 25 mph and volumes of 6,600 to 17,300 ADTs are generally favorable for safe bicycle travel.

This high priority project ranked 8<sup>th</sup> of the top 40 with an average weighted prioritization score of 19.2 points.

### Proposed Improvements

- Roadside signage (21 signs @ \$400/EA)
- Class III pavement markings (9 markings @ 14 SF/marking = 126 SF @ \$5/SF)

### Cost

\$14,087

**Project 8 – West Ash Street: North Harbor Drive to Kettner Boulevard**

<b>Item No.</b>	<b>Item</b>	<b>Preliminary Cost Estimate</b>
<b>1</b>	Traffic Control System (LS) 10%	\$903
<b>2</b>	Roadside Sign - One Post (EA)	\$8,400
<b>3</b>	Paint Pavement Marking - Two Coat (SF)	\$630
<b>4</b>	Mobilization (LS) 10%	\$903
Subtotal		\$10,836
Contingency (30%)		\$3,251
<b>Total Construction</b>		<b>\$14,087</b>

## Project 9 – A Street: India Street to 8<sup>th</sup> Avenue



### Project Description

This project serves intra-community bicycle demands across the northern portion of Centre City by providing Class III bicycle facilities along A Street from India Street to 8<sup>th</sup> Avenue.

This high priority project is over half-mile long and connects key land uses within Centre City, including major employment centers, tourist destinations, Balboa Park, and San Diego City College. This project provides connections to local bus Routes 3, 83, and 11, and express bus Routes 20, 30, 50, 120, and 150.

Bicycling issues along this project corridor include four reported bike crashes from 2002-2007. Low posted traffic speeds of 25 mph and volumes of 7,900 to 16,100 ADT's help to create a generally safe bicycling environment.

This high priority project ranked 9<sup>th</sup> of the top 40 with an average weighted prioritization score of 19.0 points.

### Proposed Improvements

- Roadside signage (13 signs @ \$400/EA)
- Painted Class III pavement markings (13 markings @ 14 SF/marking = 182 SF @ \$5/SF)

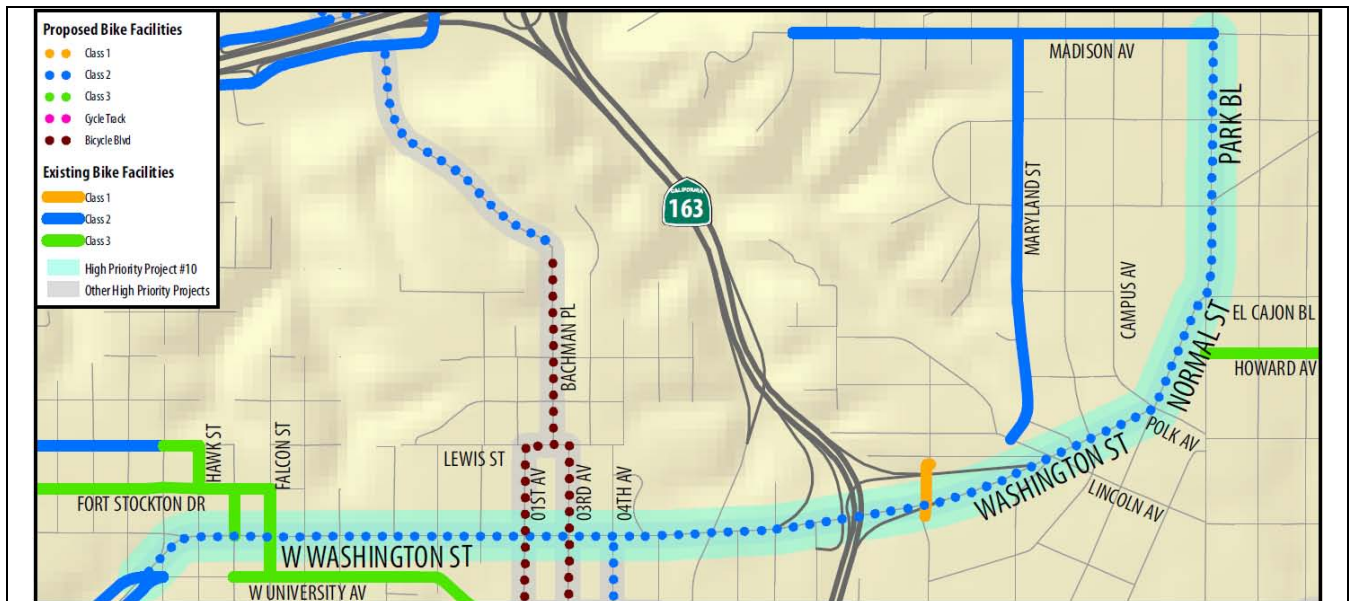
### Cost

\$9,532

### Project 9 – Cost Estimate

Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS)	\$611
2	Roadside Sign (EA)	\$5,200
3	Paint Traffic Stripe - Two Coat (LF)	\$0
4	Paint Pavement Marking - Two Coat (SF)	\$910
5	Mobilization (LS)	\$611
Subtotal		\$7,332
Contingency (30%)		\$2,200
<b>Total Construction</b>		<b>\$9,532</b>

**Project 10 – Washington Street: University Avenue to Normal Street;  
Normal Street: Washington Street to Park Boulevard; and  
Park Boulevard: El Cajon Boulevard to Madison Avenue**



### Project Description

This project serves bicycle demands between Midtown, Mission Hills, Hillcrest, University Heights, and North Park by providing Class II bicycle facilities along Washington Street from University Avenue to Normal Street, along Normal Street from Washington Street to Park Boulevard, and along Park Boulevard from El Cajon Boulevard to Madison Avenue.

This high priority project is over two miles long and connects the communities of Uptown and North Park to key land uses including employment centers, shopping centers, UCSD Medical Group, and Mercy Hospital. This project provides access to local bus routes (Routes 1, 3, 10, 15, 83, and 11), express bus routes (Routes 20 and 120), and premium express routes (Routes 810, 820, 850, and 860).

Bicycling issues along this project corridor include high travel speeds of 30 mph along Park Boulevard, and speeds of 35 to 55 mph along Washington Street. Washington Street also has high traffic volumes (23,100 to 43,200 ADTs). This segment has had twenty-one reported bike crashes from 2002-2007, including five crashes at the intersection of Washington Street and Lincoln Avenue.

This high priority project ranked 10<sup>th</sup> of the top 40 with an average weighted prioritization score of 19.0 points.

### Proposed Improvements

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>Remove traffic striping (25,520 LF @ \$1.65/LF)</li> <li>Remove asphalt concrete (6,710 SF @ \$5/SF)</li> <li>Remove concrete curb (1,810 LF @ \$17/LF)</li> <li>Install asphalt pavement (449 tons @ \$130/ton)</li> <li>Install retaining wall (5,400 SF @ \$75/SF)</li> </ul> | <ul style="list-style-type: none"> <li>Roadside signage (56 signs @ \$400/EA)</li> <li>Class II and traffic striping (54,020 LF @ \$1/SF)</li> <li>Class II pavement markings (56 markings @ 14 SF/EA = 784 SF @ \$5/SF)</li> <li>Bicycle Detector Loop (24 @ \$1,000/EA)</li> <li>High conflict area treatment (4 areas @ \$2,500/EA)</li> </ul> |
|---|---|

### Cost

\$1,060,251

## Project 10 – Cost Estimate

Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS) 10%	\$67,965
2	Remove Traffic Stripe (LF)	\$42,108
3	Remove Asphalt Concrete (SF)	\$33,550
4	Remove Concrete Curb (LF)	\$30,770
5	Asphalt Pavement (Ton)	\$53,880
6	Retaining Wall Area (SF)	\$405,000
7	Roadside Sign - One Post (EA)	\$22,400
8	Paint Traffic Stripe - Two Coat (LF)	\$54,020
9	Paint Pavement Marking - Two Coat (SF)	\$3,920
10	Bicycle Detector Loop (EA)	\$24,000
11	High Conflict Treatment (EA)	\$10,000
12	Mobilization (LS) 10%	\$67,965
	Subtotal	\$815,578
	Contingency (30%)	\$244,673
	<b>Total Construction</b>	<b>\$1,060,251</b>
	Remove Parking	308 spaces

## Project 11 – 54<sup>th</sup> Street: Montezuma Road to El Cajon Boulevard and Collwood Boulevard: Monroe Avenue to 54<sup>th</sup> Street



### Project Description

This project serves bicycle demands between the College Area, City Heights, and Talmadge by providing Class III bicycle facilities along 54<sup>th</sup> Street from Montezuma Road to Collwood Boulevard, by upgrading the existing Class III bicycle facilities to Class II facilities along 54<sup>th</sup> Street from Collwood Boulevard to El Cajon Boulevard, and upgrading the existing Class III bicycle facilities to Class II facilities along Collwood Boulevard from Monroe Avenue to 54<sup>th</sup> Street.

This high priority project is over a mile long and connects the College and Mid-City communities to key land uses including San Diego State University. This project provides connections to local bus Routes 1, 11, 15, and 955.

Bicycling issues along this project corridor include three reported bike crashes from 2002-2007. Posted traffic speeds of 25 mph and volumes of approximately 3,000 to 3,200 ADTs along 54<sup>th</sup> Street from Montezuma Road to Collwood Boulevard are generally amenable to bicycle travel. As 54<sup>th</sup> merges with Collwood Boulevard south to El Cajon Boulevard, however, posted traffic speeds increase to 35 mph and volumes increase to approximately 21,800 to 26,900 ADTs, creating difficult intersections at 54<sup>th</sup> Street and Collwood Boulevard and at 54<sup>th</sup> Street and El Cajon Boulevard. The slopes along portions of 54<sup>th</sup> Street are also quite extreme for bicycle travel.

This high priority project ranked 11<sup>th</sup> of the top 40 with an average weighted prioritization score of 18.6 points.

### Proposed Improvements

- Remove traffic stripe (920 LF @ \$1.65/LF)
- Roadside signage (15 signs @ \$400/EA)
- Class II and traffic stripe (5,520 LF @ \$1/LF)
- Class II pavement markings (4 markings @ 14 SF/marking = 56 SF @ \$5/SF)
- Class III pavement markings (11 markings @ 14 SF/marking = 154 SF @ \$5/SF)
- Bicycle Detector Loop (4 @ \$1,000/EA)

### Cost

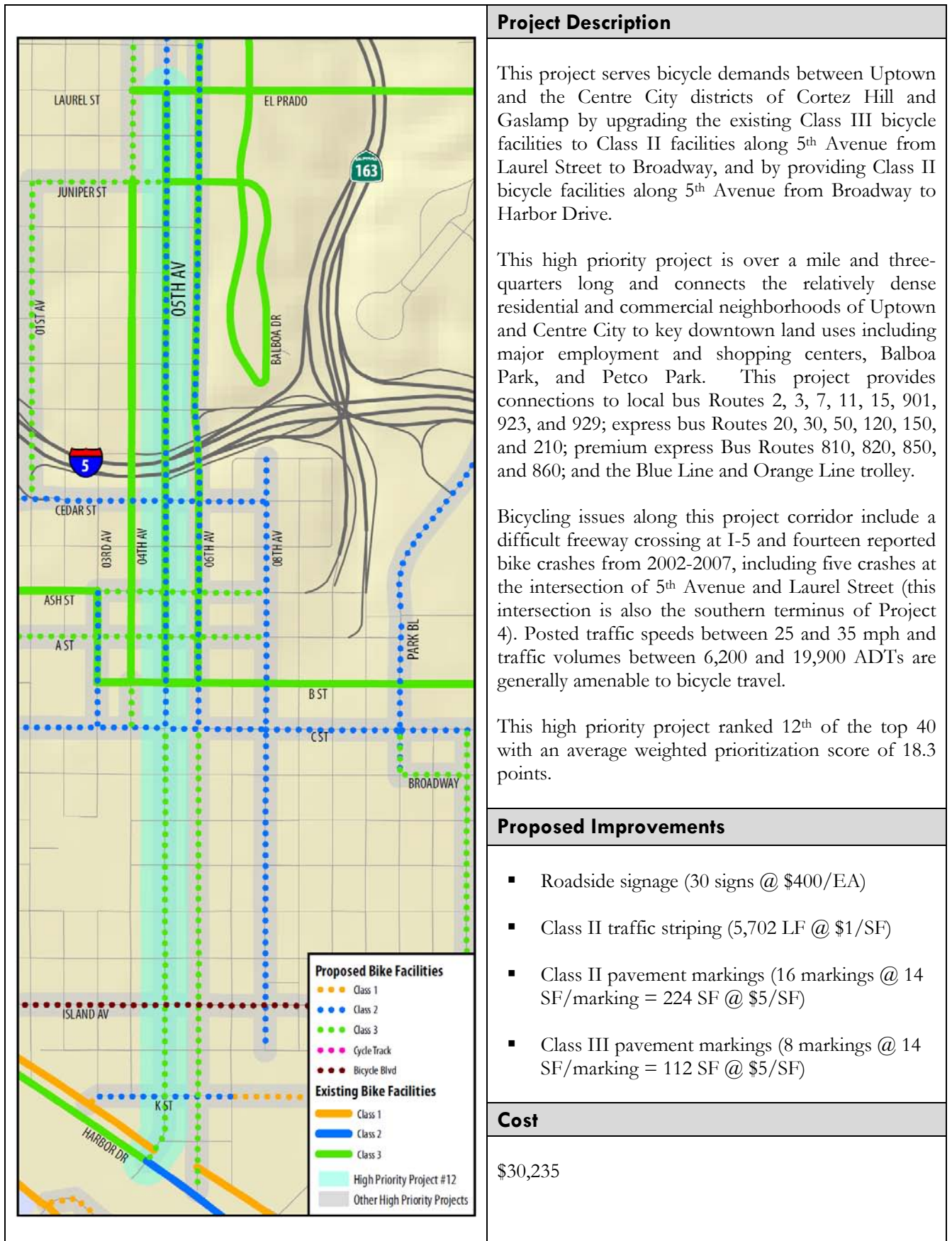
\$28,218

## Project 11 – Cost Estimate

Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS)	\$1,809
2	Remove Traffic Stripe (LF)	\$1,518
3	Roadside Sign - One Post (EA)	\$6,000
4	Paint Traffic Stripe - Two Coat (LF)	\$5,520
5	Paint Pavement Marking - Two Coat (SF)	\$1,050
6	Bicycle Detector Loop (EA)	\$4,000
7	Mobilization (LS)	\$1,809
Subtotal		\$21,706
Contingency (30%)		\$6,512
<b>Total Construction</b>		<b>\$28,218</b>



## Project 12 – 5<sup>th</sup> Avenue: Laurel Street to Harbor Drive



## Project 12 – Cost Estimate

Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS) 10%	\$1,938
2	Roadside Sign - One Post (EA)	\$12,000
3	Paint Traffic Stripe - Two Coat (LF)	\$5,702
4	Paint Pavement Marking - Two Coat (SF)	\$1,680
5	Mobilization (LS) 10%	\$1,938
Subtotal		\$23,258
Contingency (30%)		\$6,977
<b>Total Construction</b>		<b>\$30,235</b>

## Project 13 – Villa La Jolla Drive: Gilman Drive (N) to Gilman Drive (S)

	Project Description
<p><b>Proposed Bike Facilities</b></p> <ul style="list-style-type: none"> <li>Class 1</li> <li>Class 2</li> <li>Class 3</li> <li>Cycle Track</li> <li>Bicycle Blvd</li> </ul> <p><b>Existing Bike Facilities</b></p> <ul style="list-style-type: none"> <li>Class 1</li> <li>Class 2</li> <li>Class 3</li> <li>High Priority Project #13</li> <li>Other High Priority Projects</li> </ul>	<p>This project serves bicycle demands in the La Jolla and University communities by upgrading the existing Class III bicycle facilities to Class II facilities along Villa La Jolla Drive from Gilman Drive (N) to Gilman Drive (S).</p> <p>This high priority project is nearly a mile long and connects the residential and commercial districts near La Jolla Village Square to key land uses including the VA Hospital and UCSD. This project provides connections to local bus Routes 41, 49, and 921; express bus Routes 30 and 150; and NCTD Breeze Route 301.</p> <p>Bicycle issues along this project corridor include nine reported bicycle crashes from 2002-2007, with several intersections reporting two crashes each, including at the intersection of Villa La Jolla Drive and La Jolla Village Drive and at the intersection of Villa La Jolla Drive and Gilman Drive (S). Issues also include relatively high posted travel speeds of 35 to 50 mph, high traffic volumes between 10,000 and 50,100 ADTs, and difficult topography along Villa La Jolla Drive north of La Jolla Village Drive.</p> <p>This high priority project ranked 13<sup>th</sup> of the top 40 with an average weighted prioritization score of 18.2 points.</p>
	<p><b>Proposed Improvements</b></p> <ul style="list-style-type: none"> <li>Remove traffic stripe (8,220 LF @ \$1.65/LF)</li> <li>Remove asphalt concrete (1,400 SF @ \$7/SF)</li> <li>Remove concrete curb (1,400 LF @ \$17/LF)</li> <li>Remove sidewalk (3,900 SF @ \$8/SF)</li> <li>Install asphalt pavement (415 tons @ \$120/ton)</li> <li>Roadside signage (46 signs @ \$400/EA)</li> <li>Install concrete curb (1,400 LF @ \$30/LF)</li> <li>Install sidewalk (76 CY @ \$1,000/CY)</li> <li>Class II and traffic striping (17,780 LF @ \$1/SF)</li> <li>Class II pavement marking (32 markings @ 14 SF/marking = 448 SF @ \$5/SF)</li> <li>Bicycle Detector Loop (12 @ \$1,000/EA)</li> <li>Lighting (10 street lights @ \$3,000/EA)</li> <li>Fire Hydrant Assembly (2 @ \$10,000/EA)</li> </ul> <p><b>Cost</b></p> <p>\$540,669</p>

### Project 13 – Cost Estimate

Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS)	\$34,658
2	Remove Traffic Stripe (LF)	\$13,563
3	Remove Asphalt Concrete (SF)	\$9,800
4	Remove Concrete Curb (LF)	\$23,800
5	Remove Concrete Sidewalk (SF)	\$31,200
6	Asphalt Pavement (Ton)	\$49,800
7	Roadside Sign - One Post (EA)	\$18,400
8	Minor Concrete (Curb and Gutter) (LF)	\$42,000
9	Minor Concrete Sidewalk 4" (CY)	\$76,000
10	Paint Traffic Stripe - Two Coat (LF)	\$17,780
11	Paint Pavement Marking - Two Coat (SF)	\$2,240
12	Bicycle Detector Loop (EA)	\$12,000
13	Lighting (City Street) LS	\$30,000
14	Fire Hydrant Assembly (EA)	\$20,000
15	Mobilization (LS)	\$34,658
	Subtotal	\$415,899
	Contingency (30%)	\$124,770
	<b>Total Construction</b>	<b>\$540,669</b>
	Remove Parking	89 spaces

## Project 14 – 4<sup>th</sup> Avenue: Washington Street to Juniper Street



### Project Description

This project serves intra-community bicycle demands in Uptown between the Hillcrest and Park West neighborhoods by providing Class II bicycle facilities on 4<sup>th</sup> Avenue from Washington Street to Upas Street and Class III bicycle facilities on 4<sup>th</sup> Avenue from Upas Street to Juniper Street.

This high priority project is nearly a mile and a half long and connects the residential and commercial neighborhoods of Uptown to many key land uses including Mercy Hospital, the UCSD Medical Center, Balboa Park, and Centre City. This project provides connections to local bus Routes 1, 3, 10, 11, and 8, and express bus Route 120.

Bicycling issues along this project corridor include eleven reported bike crashes from 2002-2007, with three crashes at the intersection of 4<sup>th</sup> Avenue and University Avenue. Posted traffic speeds of 25 to 30 mph and volumes of 8,400 to 13,700 ADTs are otherwise generally amenable to bicycle travel.

This high priority project ranked 14<sup>th</sup> of the top 40 with an average weighted prioritization score of 18.1 points.

### Proposed Improvements

- Roadway Signage (18 signs @ \$400/EA)
- Painted Class II traffic striping (6,758 LF @ \$1/LF)
- Painted Class II pavement markings (7 markings @ 14 SF/marking = 98 SF @ \$5/SF)
- Painted Class III pavement markings (11 markings @ 14 SF/marking = 154 SF @ \$5/SF)

### Cost

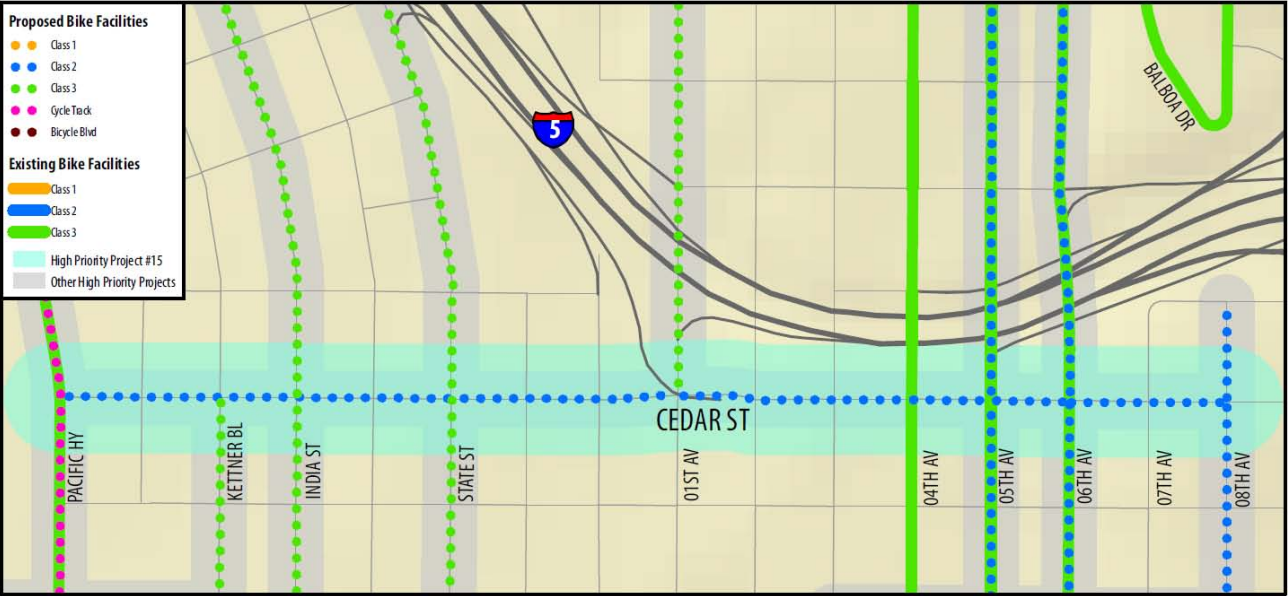
\$23,741

### Project 14 – Cost Estimate

Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS)	\$1,522
2	Roadside Sign (EA)	\$7,200
3	Paint Traffic Stripe - Two Coat (LF)	\$6,758
4	Paint Pavement Marking - Two Coat (SF)	\$1,260
5	Mobilization (LS)	\$1,522
Subtotal		\$18,262
Contingency (30%)		\$5,479
<b>Total Construction</b>		<b>\$23,741</b>



## Project 15 – Cedar Street: Pacific Highway to 8<sup>th</sup> Avenue

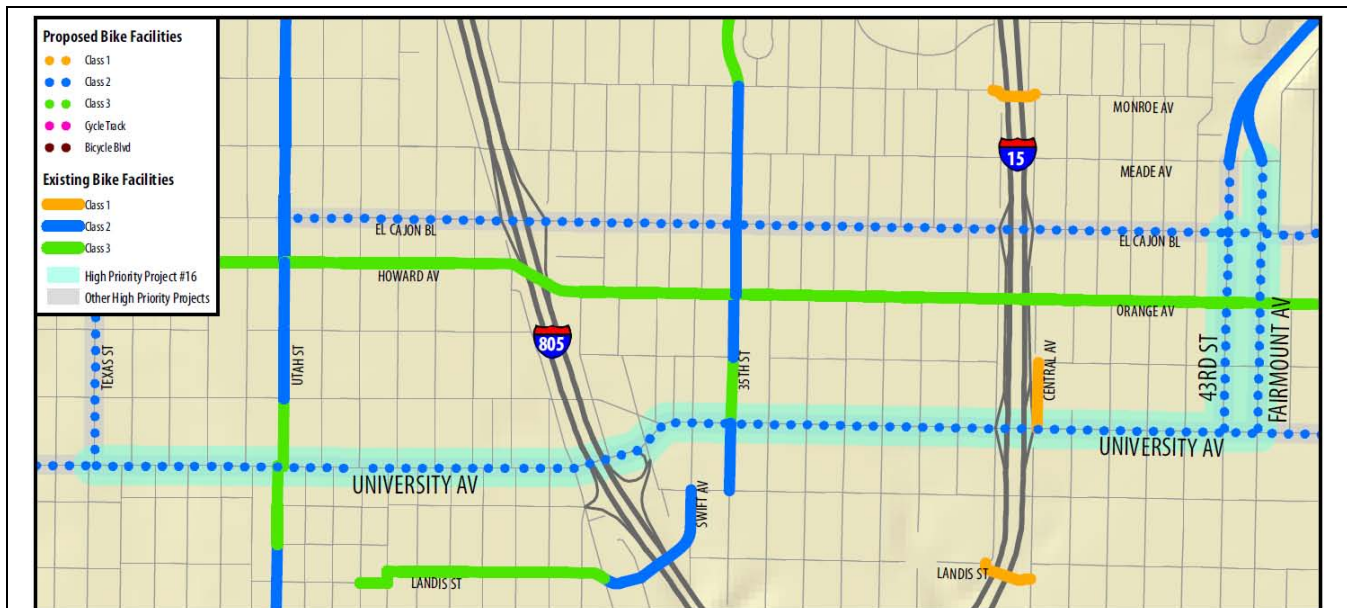
<p><b>Proposed Bike Facilities</b></p> <ul style="list-style-type: none"> <li>Class 1</li> <li>Class 2</li> <li>Class 3</li> <li>Cycle Track</li> <li>Bicycle Blvd</li> </ul> <p><b>Existing Bike Facilities</b></p> <ul style="list-style-type: none"> <li>Class 1</li> <li>Class 2</li> <li>Class 3</li> <li>High Priority Project #15</li> <li>Other High Priority Projects</li> </ul>	
<b>Project Description</b>	
<p>This project serves east-west bicycle demands through northern Centre City between the Harbor, Little Italy, and Cortez Hill neighborhoods by providing Class II bicycle facilities along Cedar Street from Pacific Highway to 8<sup>th</sup> Avenue.</p>	
<p>This high priority project is nearly a mile long and connects residential neighborhoods to office buildings, shopping, tourist attractions, the harbor, and Balboa Park. This project also provides connections to local bus Routes 3, 11, and 83; express bus Routes 30, 50, 120, and 150; premium express Routes 810, 820, 850, and 860; the Blue Line trolley, and the Coaster Commuter Rail line.</p>	
<p>Bicycling issues along this project corridor include five reported bike crashes from 2002-2007 and a difficult freeway ramp crossing at the I-5 SB Offramp. Posted traffic speeds of 25 mph and volumes of 3,000 to 8,400 ADTs are otherwise generally favorable for bicycle travel.</p>	
<p>This high priority project ranked 15<sup>th</sup> of the top 40 with an average weighted prioritization score of 17.9 points.</p>	
<b>Proposed Improvements</b>	
<ul style="list-style-type: none"> <li>Roadside Signage (32 signs @ \$400/EA)</li> <li>Class II painted traffic stripes (16,896 LF @ \$1/LF)</li> <li>Class II painted pavement markings (32 markings @142 SF/marking = 448 SF @ \$5/SF)</li> </ul>	
<b>Cost</b>	
<p>\$49,820</p>	

### Project 15 – Cost Estimate

Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS)	\$3,194
2	Roadside Sign (EA)	\$12,800
3	Paint Traffic Stripe - Two Coat (LF)	\$16,896
4	Paint Pavement Marking - Two Coat (SF)	\$2,240
5	Mobilization (LS)	\$3,194
Subtotal		\$38,323
Contingency (30%)		\$11,497
<b>Total Construction</b>		<b>\$49,820</b>



**Project 16 – University Avenue: Texas Street to Fairmont Avenue;  
43<sup>rd</sup> Street: El Cajon Boulevard to University Avenue; and  
Fairmont Avenue: Meade Avenue to University Avenue**



## Project Description

This project serves bicycle demands between North Park, City Heights, Kensington, and Talmadge by providing Class II bicycle facilities along University Avenue from Texas Street to Fairmont Avenue, along 43<sup>rd</sup> Street from El Cajon Boulevard to University Avenue, and along Fairmont Avenue from Meade Avenue to University Avenue.

This high priority project is over three miles long and serves residential and commercial areas within North Park and Mid-City. This project also provides connections to local bus Routes 1, 2, 6, 7, 10, 13, 15, 965, and 966, and express bus Routes 210 and 960.

Bicycling issues along this project corridor include travel speeds of 25 to 35 mph and volumes from 4,700 to 7,000 ADTs along 43<sup>rd</sup> Street, from 16,200 to 32,400 ADTs along University Avenue, and from 39,200 to 39,500 ADTs along Fairmont Avenue. There is a difficult intersection at University Avenue and Fairmont Avenue, and two difficult freeway crossings at the I-805 NB Ramps and at the I-15 Ramps. This segment has also had a staggering fifty-eight reported bike crashes from 2002-2007, including several intersections reporting three crashes, such as at the intersections of University Avenue and Utah Street, University Avenue and the I-805 northbound ramps, and University Avenue and the I-15 southbound ramps.

This high priority project ranked 16<sup>th</sup> of the top 40 with an average weighted prioritization score of 17.4 points.

## Proposed Improvements

- Remove traffic stripe (40,380 LF @ \$1.65/LF)
- Roadside signage (165 signs @ \$400/EA)
- Class II and traffic striping (74,660 LF @ \$1/LF)
- Class II pavement markings (89 markings @ 14 SF/marking = 1,246 SF @ \$5/SF)
- Bicycle Detector Loop (48 @ \$1,000/EA)

## Cost

\$395,487

## Project 16 – Cost Estimate

Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS) 10%	\$21,352
2	Remove Traffic Stripe (LF)	\$66,627
3	Roadside Sign - One Post (EA)	\$66,000
4	Paint Traffic Stripe - Two Coat (LF)	\$74,660
5	Paint Pavement Marking - Two Coat (SF)	\$6,230
6	Bicycle Detector Loop	\$48,000
7	Mobilization (LS) 10%	\$21,352

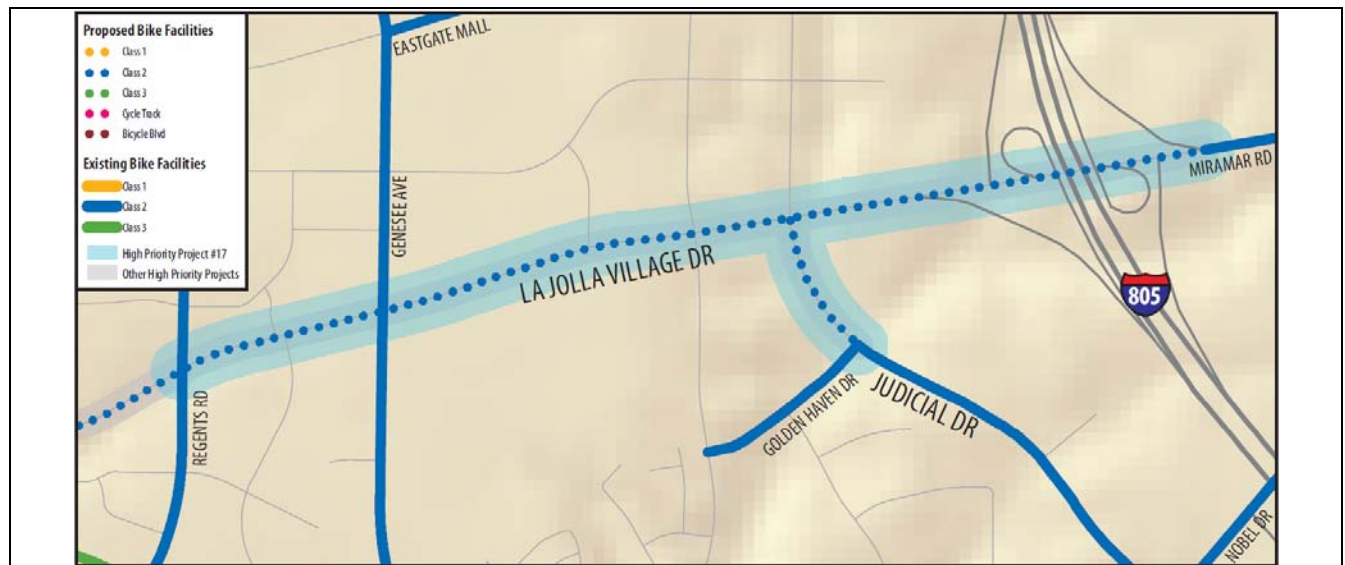
Subtotal \$304,221

Contingency (30%) \$91,266

**Total Construction \$395,487**

Remove Parking 263 spaces

## Project 17 – La Jolla Village Drive: Regents Road to I-805 NB On-ramp; Judicial Drive: La Jolla Village Drive to Golden Haven Drive



### Project Description

This project serves east-west bicycle demands between University City and Mira Mesa by providing Class II bicycle facilities along La Jolla Village Drive from Regents Road to Miramar Road at Interstate 805, and along Judicial Drive from La Jolla Village Drive to Golden Haven Drive.

The project area serves key land uses including Westfield University Towne Centre, the future Mid-Coast San Diego Trolley station, and the University City business district. By providing connections to existing bike lanes, this project also enhances access to other key activity centers including large industrial employment sites in Mira Mesa, MCAS Miramar, the UCSD campus, and the La Jolla and Clairemont Mesa communities. This project connects to local bus Routes 31, 41, 49, 86, 89, and 921; express bus Routes 30, 50, 150, and 960; and the NCTD Breeze Route 301.

Bicycling issues include high traffic speeds of 40 to 50 mph and high volumes of 36,100 to 63,600 ADTs along La Jolla Village Drive, a difficult freeway crossing at I-805, and five reported bicycle crashes from 2002 – 2007, four of which were located at the intersection of La Jolla Village Drive and Regents Road.

This project ranked 17<sup>th</sup> out of the top 40, with an average weighted prioritization score of 18.5 points.

### Proposed Improvements

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>▪ Remove traffic stripe (7,240 LF @ \$1.65/SF)</li> <li>▪ Remove asphalt concrete (1,450 SF @ \$7/SF)</li> <li>▪ Remove concrete curb (1,450 LF @ \$17/LF)</li> <li>▪ Remove concrete sidewalk (7,250 SF @ \$8/SF)</li> <li>▪ Install asphalt pavement (483 tons @ \$120/ton)</li> <li>▪ Install 4' high retaining wall (5,800 SF @ \$75/SF)</li> <li>▪ Roadside signage (20 signs @ \$400/EA)</li> </ul> | <ul style="list-style-type: none"> <li>▪ Install concrete curb and gutter (1,500 LF @ \$30/LF)</li> <li>▪ Install concrete sidewalk (89 CY @ \$1,000/CY)</li> <li>▪ Class II and traffic striping (22,920 LF @ \$1/LF)</li> <li>▪ Class II pavement markings (10 markings @ 14 SF/marking = 140 SF @ \$5/SF)</li> <li>▪ Bicycle Detector Loops (10 @ \$1,000/EA)</li> <li>▪ Fire Hydrant Assembly (1 @ \$10,000/EA)</li> </ul> |
|--|--|

### Cost

\$1,221,990

## Project 17 – Cost Estimate

Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS) 10%	\$78,333
2	Remove Traffic Stripe (LF)	\$11,946
3	Remove Asphalt Concrete (SF)	\$10,150
4	Remove Concrete Curb (LF)	\$24,650
5	Remove Concrete Sidewalk (SF)	\$58,000
6	Asphalt Pavement (Ton)	\$57,960
7	Retaining Wall Area (SF)	\$435,000
8	Roadside Sign - One Post (EA)	\$8,000
9	Minor Concrete (Curb and Gutter) (LF)	\$45,000
10	Minor Concrete Sidewalk 4" (CY)	\$89,000
11	Paint Traffic Stripe - Two Coat (LF)	\$22,920
12	Paint Pavement Marking - Two Coat (SF)	\$700
13	Bicycle Detector Loop (EA)	\$10,000
14	Fire Hydrant Assembly (EA)	\$10,000
15	Mobilization (LS) 10%	\$78,333
Subtotal		\$939,992
Contingency (30%)		\$281,998
<b>Total Construction</b>		<b>\$1,221,990</b>

**Project 18 – Texas Street: Madison Avenue to University Avenue;  
University Avenue: Florida Street to Texas Street; and  
Florida Street: University Avenue to Upas Street**



**Project Description**

This project serves bicycle demands between North Park, University Heights, and Balboa Park by providing Class II bicycle facilities along Texas Street from Madison Avenue to University Avenue, along University Avenue from Florida Street to Texas Street, and along Florida Street from University Avenue to Upas Street.

This high priority project is two miles long and connects the communities of Uptown and North Park to key land uses including shopping and employment centers and tourist attractions, such as Balboa Park. This project provides connections to local bus Routes 1, 6, 7, 10, 15, and 966.

Bicycling issues include relatively high travel speeds of 30 to 40 mph and traffic volumes of 8,900 to 28,000 ADTs along Texas Street. University Avenue and Florida Street both have posted traffic speeds of 25 mph and volumes between 3,700 and 19,800 ADTs, which can be generally amenable to bicycle travel. This project segment has a high number of bicycle crashes reported from 2002-2007. Of the twenty-five crashes reported, nine occurred at the intersection of University Avenue and Alabama Street.

This high priority project ranked 18<sup>th</sup> of the top 40 with an average weighted prioritization score of 17.0 points.

**Proposed Improvements**

- Remove traffic stripe (21,520 LF @ \$1.65/LF)
- Remove asphalt concrete (650 SF @ \$7/SF)
- Remove concrete curb (650 LF @ \$17/LF)
- Install asphalt pavement (44 tons @ \$120/ton)
- Install concrete curb (650 LF @ \$30/LF)
- Install concrete paving (25 CY @ \$1,000/CY)
- Roadside signage (56 signs @ \$400/EA)
- Class II and traffic striping (40,780 LF @ \$1/LF)
- Class II pavement markings (34 markings @ 14 SF/marking = 476 SF @ \$5/SF)
- Bicycle Detector Loop (18 @ \$1,000/EA)

**Cost**

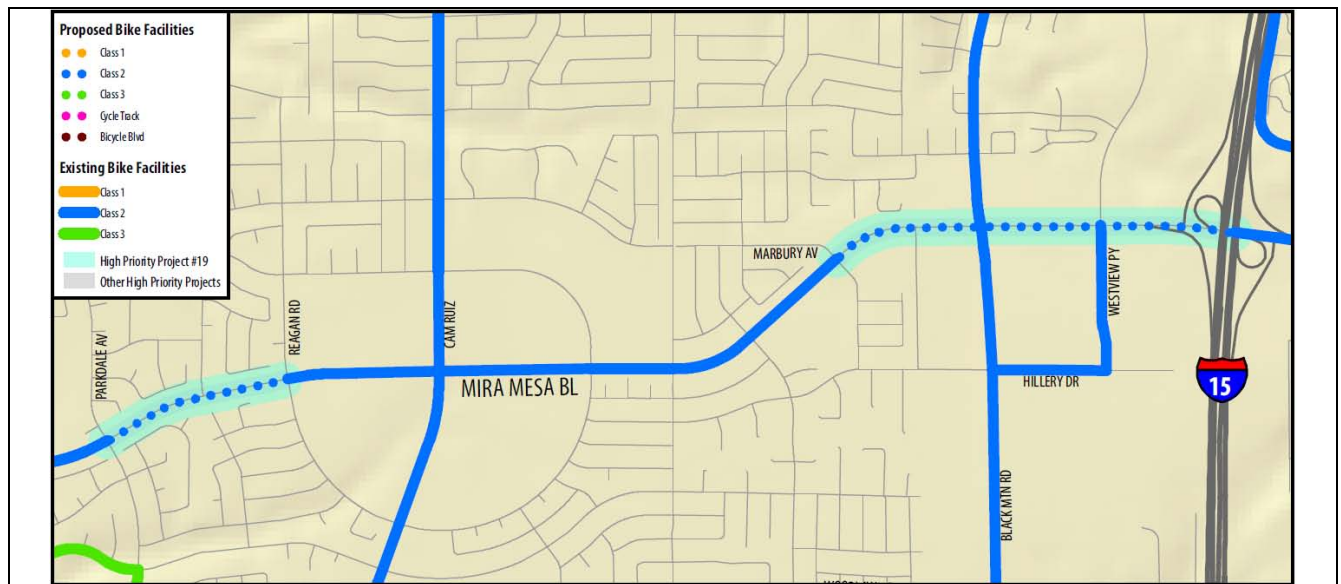
\$287,739

## Project 18 – Cost Estimate

Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS) 10%	\$18,445
2	Remove Traffic Stripe (LF)	\$35,508
3	Remove Asphalt Concrete (SF)	\$4,550
4	Remove Concrete Curb (LF)	\$11,050
5	Asphalt Pavement (Ton)	\$5,280
6	Minor Concrete (Curb and Gutter) (LF)	\$19,500
7	Minor Concrete (Island Paving) (LF)	\$25,000
8	Roadside Sign - One Post (EA)	\$22,400
9	Paint Traffic Stripe - Two Coat (LF)	\$40,780
10	Paint Pavement Marking - Two Coat (SF)	\$2,380
11	Bicycle Detector Loop	\$18,000
12	Mobilization (LS) 10%	\$18,445
	Subtotal	\$221,338
	Contingency (30%)	\$66,401
	<b>Total Construction</b>	<b>\$287,739</b>
	Remove Parking	219 spaces



## Project 19 – Mira Mesa Boulevard: Parkdale Avenue to Reagan Road; and Mira Mesa Boulevard: Marbury Avenue to I-15



### Project Description

This project serves bicycle demands between Mira Mesa and Scripps Miramar Ranch by providing Class II bicycle facilities along Mira Mesa Boulevard from Parkdale Avenue to Reagan Road and from Marbury Avenue to I-15.

This high priority project is over a mile long and connects the residential and commercial communities of Mira Mesa and Scripps Ranch to major employment and shopping centers and to Mira Mesa High School. This project provides connections to local bus Routes 31, 921, and 964; express bus Routes 20 and 210; and premium express Routes 810, 820, 850, and 860.

Bicycling issues along this project corridor include high traffic speeds of 45 mph, extremely high traffic volumes between 44,300 and 58,400 ADTs, a difficult freeway crossing at the I-15 southbound ramps, and fifteen reported bicycle crashes from 2002-2007, including four crashes at the intersection of Mira Mesa Boulevard and Black Mountain Road.

This high priority project ranked 19<sup>th</sup> of the top 40 with an average weighted prioritization score of 17.0 points.

### Proposed Improvements

- |   |  |
|---|--|
| <ul style="list-style-type: none"> <li>▪ Remove traffic striping (20,200 LF @ \$1.65/LF)</li> <li>▪ Remove asphalt concrete (3,690 SF @ \$7/SF)</li> <li>▪ Remove concrete pavement (3,690 SF @ \$9/SF)</li> <li>▪ Remove concrete curb (3,690 LF @ \$17/LF)</li> <li>▪ Highway planting (\$200,000 LS)</li> <li>▪ Install asphalt pavement (274 tons @ \$120/ton)</li> </ul> | <ul style="list-style-type: none"> <li>▪ Roadside signage (8 signs @ \$400/EA)</li> <li>▪ Install concrete curb and gutter (3,690 LF @ \$30/LF)</li> <li>▪ Class II and traffic striping (30,300 LF @ \$1/LF)</li> <li>▪ Class II pavement markings (8 markings @ 14 SF/EA = 112 SF @ \$5/SF)</li> <li>▪ Bicycle Detector Loop (8 @ \$1,000/EA)</li> </ul> |
|---|--|

### Cost

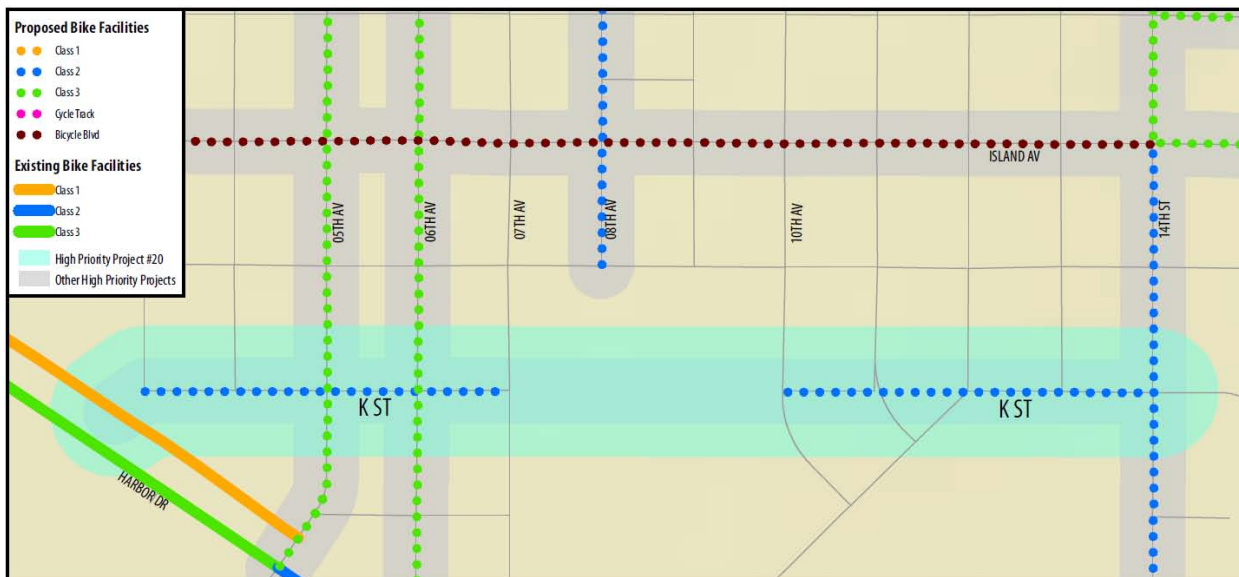
\$843,554

## Project 19 – Cost Estimate

Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS) 10%	\$54,074
2	Remove Traffic Stripe (LF)	\$33,330
3	Remove Asphalt Concrete (SF)	\$25,830
4	Remove Concrete Pavement (SF)	\$33,210
5	Remove Concrete Curb (LF)	\$62,730
6	Highway Planting (LS)	\$200,000
7	Asphalt Pavement (Ton)	\$32,880
8	Roadside Sign - One Post (EA)	\$3,200
9	Minor Concrete (Curb and Gutter) (LF)	\$110,700
10	Paint Traffic Stripe - Two Coat (LF)	\$30,300
11	Paint Pavement Marking - Two Coat (SF)	\$560
12	Bicycle Detector Loop (EA)	\$8,000
13	Mobilization (LS) 10%	\$54,074
Subtotal		\$648,888
Contingency (30%)		\$194,666
<b>Total Construction</b>		<b>\$843,554</b>



## Project 20 – K Street: 3<sup>rd</sup> Avenue to 7<sup>th</sup> Avenue; and K Street: 10<sup>th</sup> Avenue to 14<sup>th</sup> Street



### Project Description

This project serves intra-community bicycle demands through the Centre City neighborhoods of East Village, Gaslamp, and the Marina District by providing Class II bicycle facilities along K Street from 3<sup>rd</sup> Avenue to 7<sup>th</sup> Avenue and from 10<sup>th</sup> Avenue to 14<sup>th</sup> Street.

This high priority project is nearly half a mile long and connects the residential and commercial neighborhoods near Petco Park to key downtown land uses including the harbor, the Martin Luther King Jr. Promenade, and the Bayshore Bikeway. This project provides connections to local bus Routes 11, 901, and 929, the Blue Line trolley, and the Orange Line trolley.

Bicycling issues along this project corridor include two reported bike crashes from 2002-2007. Posted traffic speeds of 25 mph and volumes of 1,800 ADT to 7,800 ADT are generally favorable for bicycle travel.

This high priority project ranked 20<sup>th</sup> of the top 40 with an average weighted prioritization score of 16.8 points.

### Proposed Improvements

- Roadside Signage (20 signs @ \$400/EA)
- Painted Class II traffic striping (9,082 LF @ \$1/LF)
- Painted Class II pavement markings (20 markings @ 14 SF/marking = 280 SF @ \$5/SF)

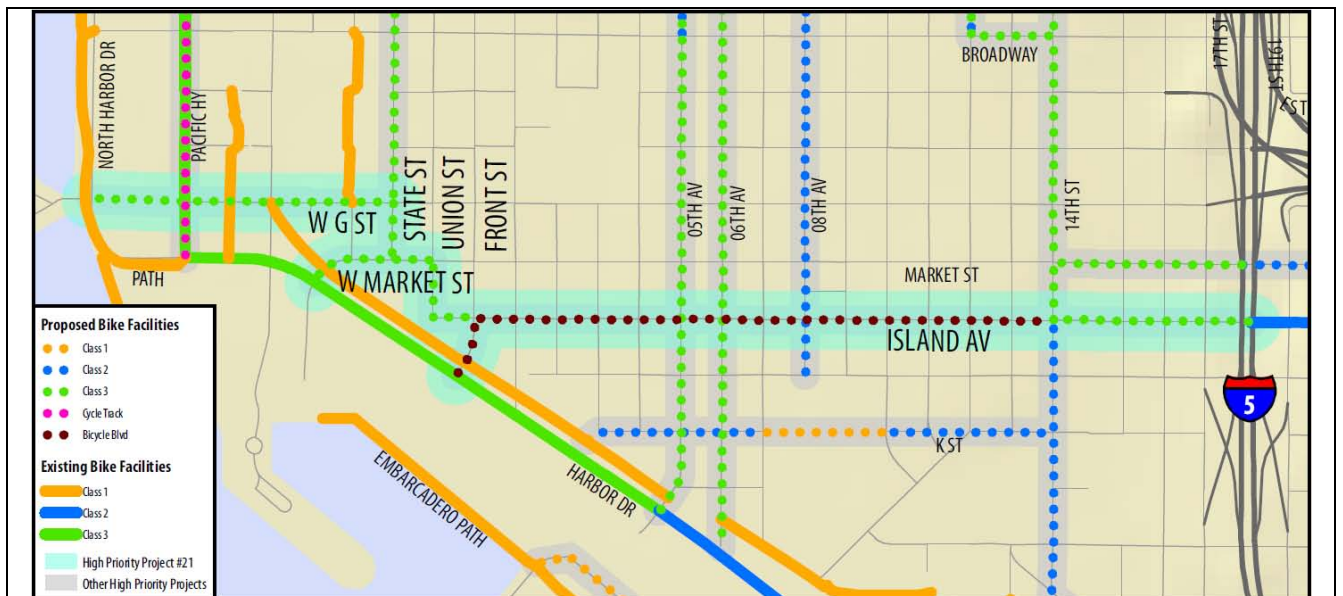
### Cost

\$28,831

## Project 20 – Cost Estimate

Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS)	\$1,848
2	Roadside Sign (EA)	\$8,000
3	Paint Traffic Stripe - Two Coat (LF)	\$9,082
4	Paint Pavement Marking - Two Coat (SF)	\$1,400
5	Mobilization (LS)	\$1,848
Subtotal		\$22,178
Contingency (30%)		\$6,653
<b>Total Construction</b>		<b>\$28,831</b>

## Project 21 – Marina District to East Village along G Street, Market Street, and Island Avenue



### Project Description

This project serves bicycle demands through the Centre City neighborhoods of Harbor, Gaslamp, and East Village by providing Class III bicycle facilities along West G Street from North Harbor Drive to State Street, along State Street from West G Street to West Market Street, along West Market Street from Harbor Drive to Union Street, along Union Street from West Market Drive to Island Avenue, and along Island Avenue from Union Street to I-5.

This high priority project is nearly two miles long and connects the dense residential and commercial neighborhoods near Petco Park and City College in the east to key land uses and transit opportunities in the west, including Seaport Village, the Orange Line, San Diego Harbor, and the Bayshore Bikeway. In conjunction with multiple other high priority projects, this project will greatly enhance the connectivity of the Center City bicycle network.

Traffic speeds (25 mph) are generally amenable to bicycle travel and topography is not a significant issue. This segment had nine reported bike crashes from 2002-2007, however, including two crashes at the intersection of Harbor Drive and Market Street and two crashes at the intersection of 5<sup>th</sup> Street and Island Street.

This high priority project ranked 21<sup>st</sup> of the top 40 with an average weighted prioritization score of 16.6 points.

### Proposed Improvements

- Roadside signage (67 signs @ \$400/EA)
- Class III pavement markings (24 markings @ 14 SF/marking = 336 SF @ \$5/SF)
- Bicycle Boulevard pavement markings (37 markings @ 14 SF/marking = 518 SF @ \$5/SF)

### Cost

\$50,158

## Project 21 – Cost Estimate

1	Item	Preliminary Cost Estimate
2	Traffic Control System (LS) 10%	\$3,215
3	Roadside Sign - One Post (EA)	\$26,800
4	Paint Pavement Marking - Two Coat (SF)	\$4,270
5	Mobilization (LS) 10%	\$3,215
Subtotal		\$38,583
Contingency (30%)		\$11,575
<b>Total Construction</b>		<b>\$50,158</b>

## Project 22 – India Street from Washington Street to West C Street



### Project Description

This project serves travel demands between Uptown and Center City through the neighborhoods of Midtown, Little Italy, and Columbia by providing Class II bicycle facilities along Washington Street near India Street and along India Street from Washington Street to Olive Street. This project also includes Class III bicycle facilities along India Street from Laurel Street to West C Street.

This project is nearly two miles long and connects the residential neighborhood of Midtown in the north to key entertainment and downtown land uses, as well as to local bus Routes (11, 30, 50, 83), and the Blue Line and Orange Line trolley.

Bicycling issues along the proposed project include relatively high travel speeds (35-40 mph) along India Street. There have also been ten bicycle crashes from 2002-2007, including two at the intersection of India Street and B Street. Traffic volumes along the proposed project is low (less than 6,000 ADT) and generally amenable to bicycling.

This high priority project ranked 22<sup>nd</sup> out of the top 40 with an average weighted prioritization score of 16.6 points.

### Proposed Improvements

- Remove traffic striping (19,610 LF @ \$1.65/SF)
- Remove concrete curb (1,200 LF @ \$17/LF)
- Install concrete pavement (179 CY @ \$350/CY)
- Roadside signage (52 signs @ \$400/EA)
- Class II and traffic striping (15,250 LF @ \$1/LF)
- Class II pavement markings (24 markings @ 14 SF/marking = 336 SF @ \$5/SF)
- Class III pavement markings (13 markings @ 14 SF/marking = 182 SF @ \$5/SF)
- Bicycle Detector Loop (6 @ \$1,000/EA)

### Cost

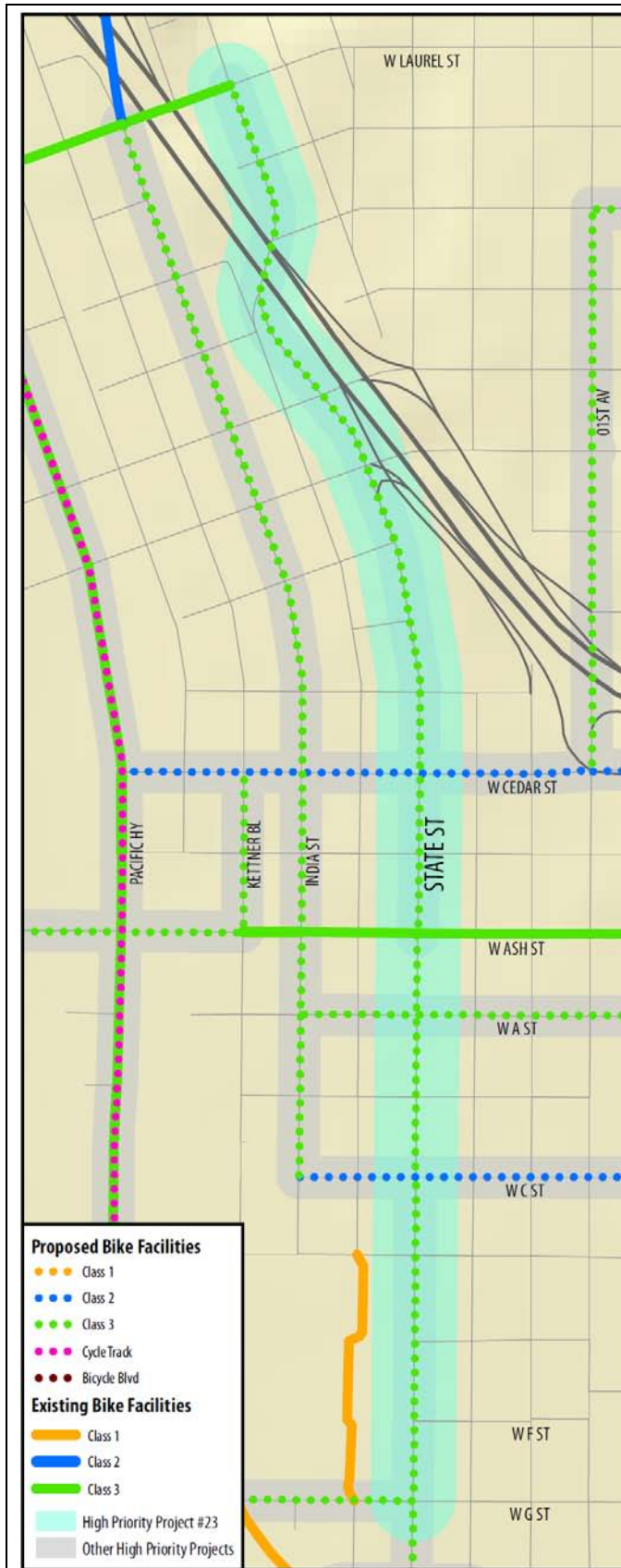
\$250,124

## Project 22 – Cost Estimate

Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS) 10%	\$16,034
2	Remove Traffic Stripe (LF)	\$32,357
3	Remove Concrete Curb (LF)	\$20,400
4	Concrete Pavement (8") (CY)	\$62,650
5	Roadside Sign - One Post (EA)	\$20,800
6	Paint Traffic Stripe - Two Coat (LF)	\$15,250
7	Paint Pavement Marking - Two Coat (SF)	\$2,830
8	Bicycle Detector Loop (EA)	\$6,000
9	Mobilization (LS) 10%	\$16,034
Subtotal		\$192,403
Contingency (30%)		\$57,721
<b>Total Construction</b>		<b>\$250,124</b>
Remove Parking		48 spaces



## Project 23 – State Street: Laurel Street to West G Street



### Project Description

This project serves bicycling demands through the neighborhoods of Park West, Little Italy, Columbia, Marina, and Horton Plaza by providing Class III bicycle facilities along State Street from Laurel Street to West G Street.

This high priority project is over a mile long and runs along the borders of the residential neighborhoods of Park West and Little Italy in the north connecting them to downtown San Diego and key land uses in the south including shopping, dining, and employment opportunities. This project provides connections to local bus Routes 2, 901, 923, and 992; express bus Routes 30, 150, and 210; premium express Routes 810, 820, 850, and 860; and the Blue Line and the Orange Line trolley.

Current traffic volumes and speeds of 25-30 mph are conducive to the bicycling environment and there were no bicycle related crashes during the period between 2002 and 2007.

This high priority project ranked 23<sup>rd</sup> of the top 40 with an average weighted prioritization score of 16.6 points.

### Proposed Improvements

- Roadside signage (36 signs @ \$400/EA)
- Class III pavement markings (18 markings @ 14 SF/marking = 252 SF @ \$5/SF)

### Cost

\$24,430

### Project 23 – Cost Estimate

Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS) 10%	\$1,566
2	Roadside Sign - One Post (EA)	\$14,400
3	Paint Pavement Marking - Two Coat (SF)	\$1,260
4	Mobilization (LS) 10%	\$1,566
Subtotal		\$18,792
Contingency (30%)		\$5,638
<b>Total Construction</b>		<b>\$24,430</b>



## Project 24 – Bayshore Bikeway: Embarcadero Path to National City city limit



### Project Description

This project serves travel demands between the neighborhoods of Marina, Barrio Logan and the 32<sup>nd</sup> Street Naval Station by providing Class I bicycle facilities along the Bayshore Bikeway from the Embarcadero Path to the city limit of National City, running directly adjacent and parallel to the Class II facility on Harbor Drive.

This high priority project is over three miles long and connects the southern 5<sup>th</sup> Street terminus, Petco Park, and San Diego Convention Center in the north to key land uses in the south including manufacturing and naval employment centers, as well as the residential neighborhoods of Barrio Logan. It also serves as the sole north-south bikeway in the west between San Diego and National City. This project provides connections to local bus Routes 901 and 929, and runs parallel half a block away from the Blue Line trolley. The level topography of the Bayshore Bikeway is amenable to bicycle facilities.

This high priority project ranked 24<sup>th</sup> of the top 40 with an average weighted prioritization score of 16.5 points.

### Proposed Improvements

- Install Class I asphalt pavement (5,069 tons @ \$120/ton)
- Roadside Signage (30 signs @ \$400/EA)
- Class I centerline striping (17,107 LF @ \$1/LF)


### Cost

\$836,140

## Project 24 – Cost Estimate

Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS)	\$2,911
2	Asphalt Pavement (Ton)	\$608,256
3	Roadside Sign (EA)	\$12,000
4	Paint Traffic Stripe - Two Coat (LF)	\$17,107
5	Mobilization (LS)	\$2,911
Subtotal		\$643,185
Contingency (30%)		\$192,955
<b>Total Construction</b>		<b>\$836,140</b>

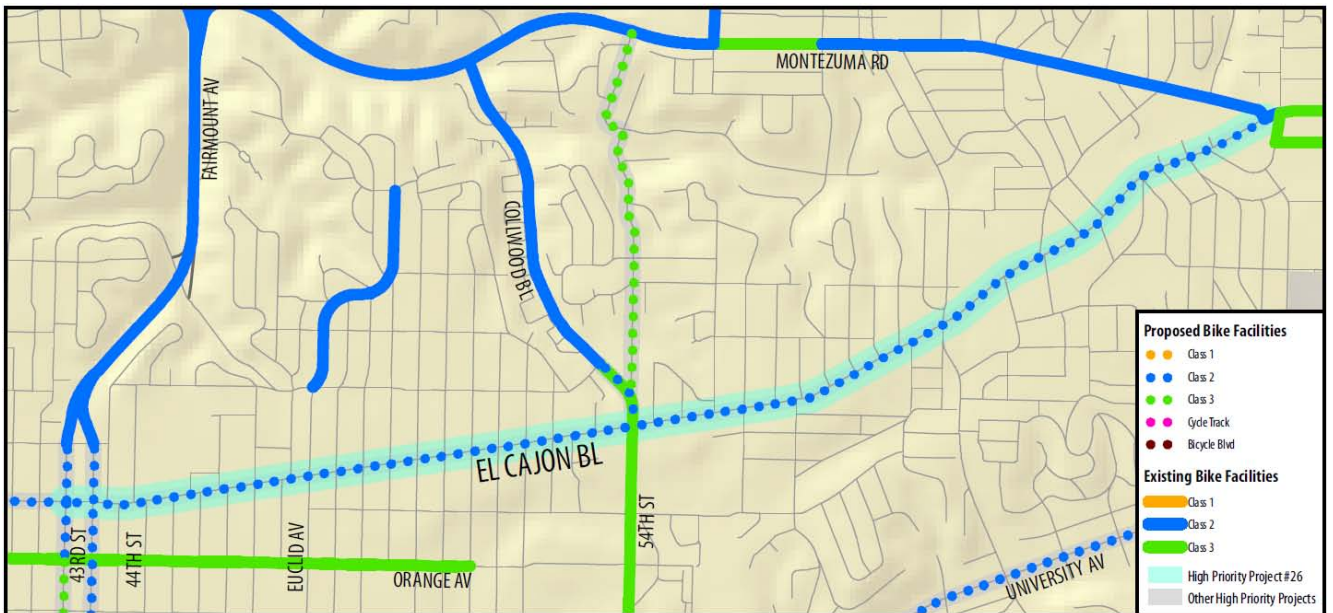
## Project 25 – Ruffin Road: Kearny Villa Road to Aero Drive

	<b>Project Description</b>
	<p>This project serves intra-community bicycle demands through Kearny Mesa by providing Class II bicycle facilities along Ruffin Road from Kearny Villa Road to Aero Drive.</p>
	<p>This high priority project is over two miles long and connects the Miramar Air Station and industrial park areas in the north to many key land uses including recreational trails through San Diego National Wildlife Refuge in the east, multiple transit stops, Miramar College, and Miramar Naval Air Station in the south. This project provides connections to local bus Routes 25 and 928, express bus Routes 20 and 960, and premium express Route 870.</p>
	<p>Issues along this project corridor include high travel speeds of 45 to 55 mph. There have also been five bicycle crashes between 2002 and 2007, including two at the intersection of Ruffin Road and Claremont Mesa Boulevard. The topography of the project area is generally amenable to bicycling and traffic volumes are moderate.</p>
	<p>This high priority project ranked 25<sup>th</sup> of the top 40 with an average weighted prioritization score of 15.9 points.</p>
	<b>Proposed Improvements</b>
	<ul style="list-style-type: none"><li>Remove traffic stripe (49,320 LF @ \$1.65/LF)</li><li>Remove asphalt concrete (700 SF @ \$7/SF)</li><li>Remove concrete curb (700 LF @ \$17/LF)</li><li>Remove concrete sidewalk (2,250 SF @ \$8/SF)</li><li>Install asphalt pavement (156 tons @ \$120/ton)</li><li>Roadside signage (46 signs @ \$400/EA)</li><li>Install concrete curb (700 LF @ \$30/LF)</li><li>Install concrete sidewalk (28 CY @ \$1,000/CY)</li><li>Class II and traffic striping (96,640 SF @ \$1/SF)</li><li>Class II pavement markings (46 markings @ 14 SF/EA = 644 SF @ \$5/SF)</li><li>Bicycle Detector Loop (24 @ \$1,000/EA)</li></ul>
	<b>Cost</b>
	\$508,807

## Project 25 – Cost Estimate

Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS) 10%	\$32,616
2	Remove Traffic Stripe (LF)	\$81,378
3	Remove Asphalt Concrete (SF)	\$4,900
4	Remove Concrete Curb (LF)	\$11,900
5	Remove Concrete Sidewalk (SF)	\$18,000
7	Asphalt Pavement (Ton)	\$18,720
8	Roadside Sign - One Post (EA)	\$18,400
9	Minor Concrete (Curb and Gutter) (LF)	\$21,000
10	Minor Concrete Sidewalk 4" (CY)	\$28,000
11	Paint Traffic Stripe - Two Coat (LF)	\$96,640
12	Paint Pavement Marking - Two Coat (SF)	\$3,220
13	Bicycle Detector Loop (EA)	\$24,000
14	Mobilization (LS) 10%	\$32,616
Subtotal		\$391,390
Contingency (30%)		\$117,417
<b>Total Construction</b>		<b>\$508,807</b>
Remove Parking		17 spaces

## Project 26 – El Cajon Boulevard: 43<sup>rd</sup> Street to Montezuma Road



### Project Description

This project serves travel demands through the Mid-City neighborhoods of Kensington, Talmadge, Teralta East, Colina Del Sol, El Cerrito, and Rolando by providing Class II bicycle facilities along El Cajon Boulevard from 43<sup>rd</sup> Street to Montezuma Road.

This high priority project is nearly three miles long and connects the residential neighborhoods of Mid-City and College Area with existing and proposed bicycle lanes west to North Park and Uptown, local bus routes (1, 13, 15, 856, 936, 955), and north to San Diego State University. In conjunction with multiple other high priority projects, this project will greatly enhance the connectivity of the City's downtown bicycle network between the Mid-City and College area communities.

Issues along this project area include high traffic speeds (45-55 mph), high traffic volumes along the western leg near Fairmont Avenue, and thirty-eight bicycle crashes from 2002-2007, including four at the intersection of Euclid Avenue and El Cajon Boulevard.

This high priority project ranked 26<sup>th</sup> of the top 40 with an average weighted prioritization score of 15.8 points.

### Proposed Improvements

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>Remove traffic stripe (30,366 LF @ \$1.65/LF)</li> <li>Roadside signage (68 signs @ \$400/EA)</li> <li>Class II and traffic striping (91,098 LF @ \$1/LF)</li> </ul> | <ul style="list-style-type: none"> <li>Class II pavement markings (54 markings @ 14 SF/marking = 756 SF @ \$5/SF)</li> <li>Bicycle Detector Loop (32 @ \$1,000 EA)</li> </ul> |
|---|---|

### Cost

\$318,551

## Project 26 – Cost Estimate

Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS) 10%	\$20,420
2	Remove Traffic Stripe (LF)	\$50,104
3	Roadside Sign - One Post (EA)	\$27,200
4	Paint Traffic Stripe - Two Coat (LF)	\$91,098
5	Paint Pavement Marking - Two Coat (SF)	\$3,780
6	Bicycle Detector Loop	\$32,000
7	Mobilization (LS) 10%	\$20,420

Subtotal \$245,039

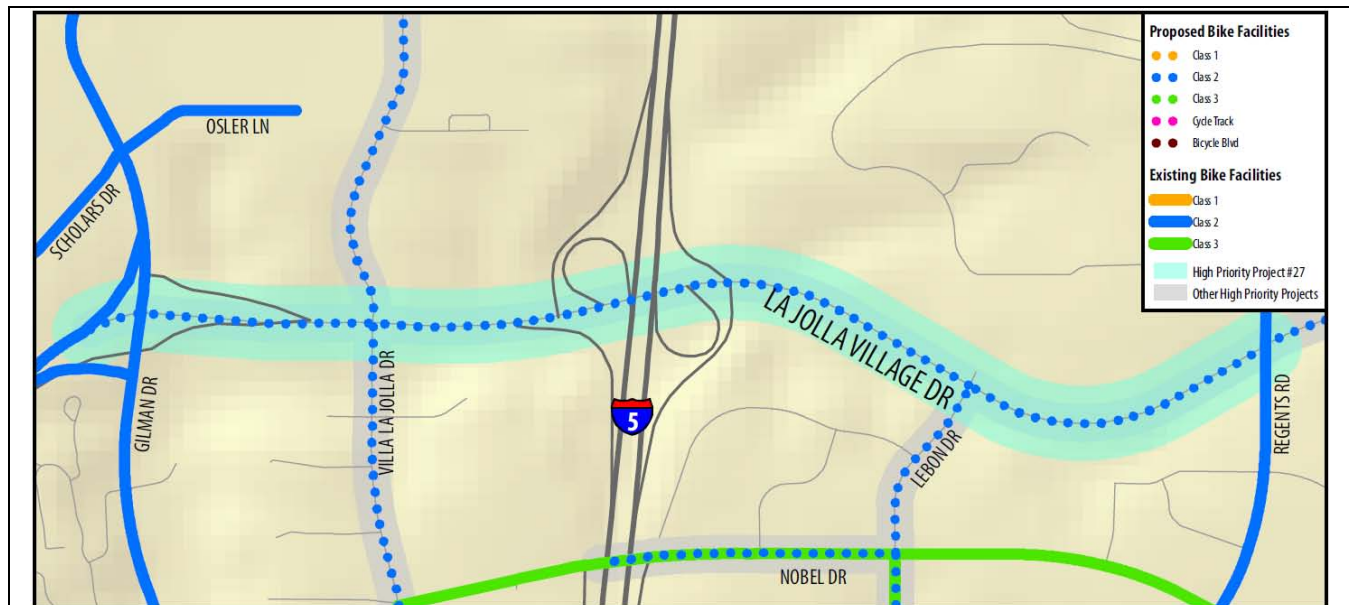
Contingency (30%) \$73,512

**Total Construction \$318,551**

Remove Parking 17 spaces



## Project 27 – La Jolla Village Drive: Gilman Drive to Regents Road



### Project Description

This project serves travel demands within the University and La Jolla communities near the University of California at San Diego by providing Class II bicycle facilities along La Jolla Village Drive from Gilman Drive to Regents Road.

This high priority project is over a mile long and connects the residential neighborhoods near La Jolla Village and UCSD in the west with UTC shopping center and University City residential areas in the east. This project provides connections to local bus Routes 41, 49, and 921; express bus Routes 30 and 150; and NCTD Breeze Route 301.

Issues along the project corridor include a difficult freeway crossing at I-5 and nine bicycle crashes between 2002 and 2007, including four at the intersection of Regents Road and La Jolla Village Drive (this intersection is also the western terminus of Project 17). High traffic speeds of 40 to 45 mph and very high traffic volumes (43,200 to 62,700 ADT) are also issues for bicyclists using this roadway.

This high priority project ranked 27<sup>th</sup> of the top 40 with an average weighted prioritization score of 15.7 points.

### Proposed Improvements

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>Remove traffic striping (8,550 LF @ \$1.65/LF)</li> <li>Remove asphalt concrete (1,010 SF @ \$7/SF)</li> <li>Remove concrete pavement (1,840 SF @ \$9/SF)</li> <li>Remove concrete curb (1,930 LF @ \$17/LF)</li> <li>Install asphalt pavement (113 tons @ \$120/ton)</li> <li>Roadside signage (24 signs @ \$400/EA)</li> </ul> | <ul style="list-style-type: none"> <li>Class II and traffic striping (21,600 LF @ \$1/LF)</li> <li>Class II pavement markings (12 markings @ 14 SF/EA = 168 SF @ \$5/SF)</li> <li>Bicycle Detector Loop (10 @ \$1,000/EA)</li> <li>High Conflict Area Treatment (4 areas @ \$2,500/EA)</li> </ul> |
|---|---|

### Cost

\$212,391

## Project 27 – La Jolla Village Drive: Gilman Drive to Regents Road

Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS) 10%	\$13,615
2	Remove Traffic Stripe (LF)	\$14,108
4	Remove Asphalt Concrete (SF)	\$7,070
5	Remove Concrete Pavement (SF)	\$16,560
6	Remove Concrete Curb (LF)	\$32,810
7	Asphalt Pavement (Ton)	\$13,560
8	Roadside Sign - One Post (EA)	\$9,600
9	Paint Traffic Stripe - Two Coat (LF)	\$21,600
10	Paint Pavement Marking - Two Coat (SF)	\$840
11	Bicycle Detector Loop (EA)	\$10,000
12	High Conflict Treatment (LS)	\$10,000
13	Mobilization (LS) 10%	\$13,615

Subtotal \$163,378

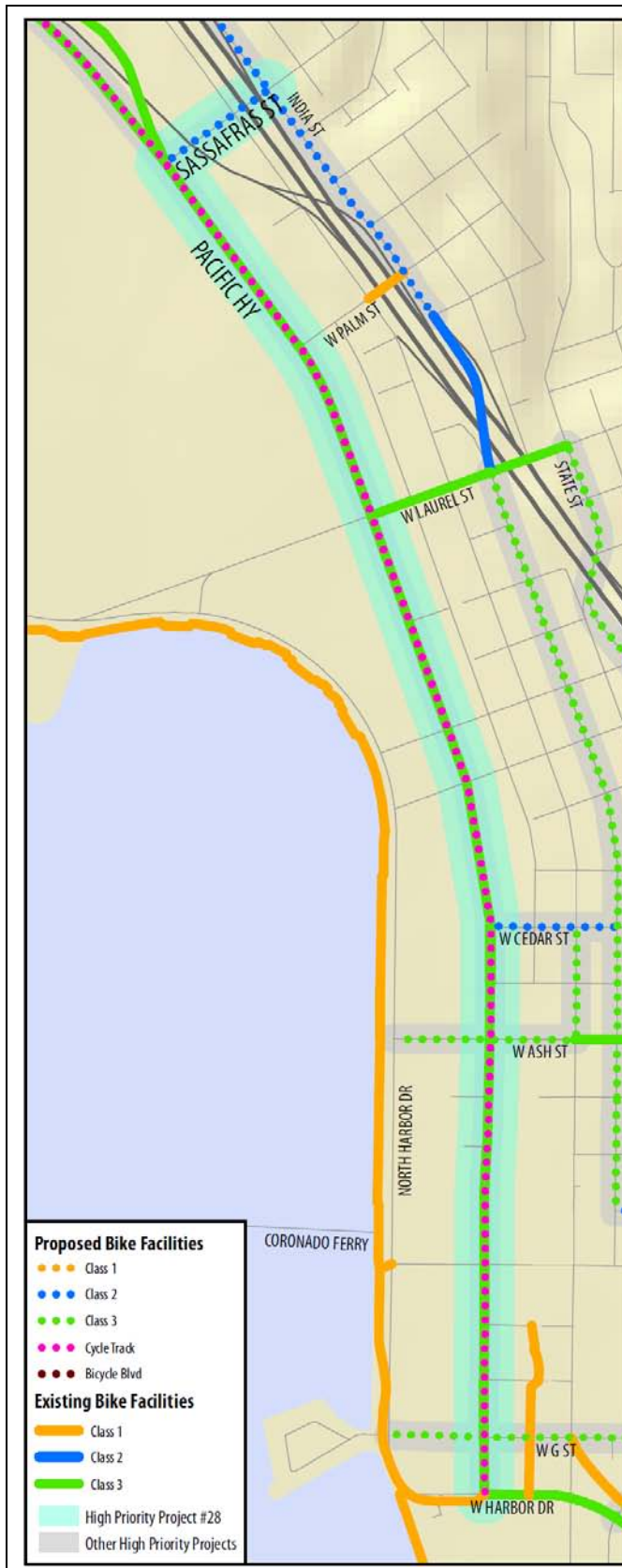
Contingency (30%) \$49,013

**Total Construction \$212,391**

Remove Parking 124 spaces



## Project 28 – Sassafras Street: Pacific Highway to India Street; Pacific Highway: Sassafras Street to Harbor Drive



### Project Description

This project serves bicycle demands between western Midtown and the Centre City neighborhoods of Harbor View, Columbia, and Marina by providing Class II bicycle facilities along Sassafras Street from Pacific Highway to India Street and upgrading existing Class III bicycle facilities to Cycle Track facilities along Pacific Highway from Sassafras Street to Harbor Drive.

This high priority project is nearly two miles long and connects the industrial areas west of Pacific Highway with key residential and commercial land uses in Center City. This project provides connections to local bus Routes 2, 923, and 992; express bus Routes 30, 50, 150, and 210; premium express Routes 810, 820, 850, and 860; the Blue Line trolley; and the Coaster Commuter Rail.

Bicycling issues along this project corridor include four bicycle crashes from 2002 to 2007, including two at the intersection of Pacific Highway and Sassafras Street. Traffic speeds along Pacific Highway are between 35 and 45 mph and volumes are from 8,000 to 27,300 ADTs.

This high priority project ranked 28<sup>th</sup> of the top 40 with an average weighted prioritization score of 15.6 points.

### Proposed Improvements

- Remove traffic striping (7,660 LF @ \$1.65/LF)
- Remove Asphalt Concrete (119,000 SF @ \$7/SF)
- Remove Concrete Pavement (480 LF @ \$15/LF)
- Remove Concrete Curb (480 LF @ \$17/LF)
- Remove Concrete Sidewalk (480 SF @ \$8/SF)
- Install Asphalt Pavement (4,407 tons @ \$120/ton)
- Install Concrete Sidewalk (30 CY @ \$1,000/CY)
- Install Concrete Curb (17,480 LF @ \$30/LF)
- Install Concrete Paving (149 CY @ \$1,000/CY)
- Roadside Signage (44 signs @ \$400/EA)
- Class II and traffic striping (11,320 LF @ \$1/LF)
- Class II pavement markings (92 markings @ 14 SF/marking = 1,608 SF @ \$5/SF)
- Install Bicycle Detector Loops (26 detectors @ \$1,000/EA)
- Relocate RR Active Warning System (2 @ \$75,000/EA)

### Cost

**\$3,487,441**

## Project 28 – Cost Estimate

Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS)	\$223,554
2	Remove Traffic Stripe (LF)	\$12,639
3	Remove Concrete Pavement (SF)	\$7,200
4	Remove Concrete Curb (LF)	\$8,160
5	Remove Concrete Sidewalk (SF)	\$3,840
6	Concrete Pavement (8") (CY)	\$74,500
7	Roadside Sign - One Post (EA)	\$17,600
8	Minor Concrete (Curb and Gutter) (LF)	\$524,400
9	Minor Concrete Sidewalk 4" (CY)	\$30,000
10	Paint Traffic Stripe - Two Coat (LF)	\$11,320
11	Paint Pavement Marking - Two Coat (SF)	\$8,040
12	Bicycle Detector Loop (EA)	\$26,000
13	Relocate RR Active Warning System (EA)	\$150,000
14	Mobilization (LS) 10%	\$223,554

Subtotal \$2,682,647

Contingency (30%) \$804,794

**Total Construction \$3,487,441**

## Project 29 – 8<sup>th</sup> Avenue: Date Street to J Street



### Project Description

This project serves bicycle travel demand between the Center City neighborhoods of Cortez, Columbia, and East Village by providing Class II bicycle facilities along 8<sup>th</sup> Avenue from Date Street to J Street.

This high priority project is approximately one mile long and connects relatively dense residential neighborhoods and Balboa Park in the north with many downtown key land uses including major bus and trolley transit stations, employment centers, and PETCO Park in the south. This project provides connections to local bus Routes 2, 3, 7, 11, 15, 901, 923, and 929; express bus Routes 20, 30, 50, 150, and 210; premium express Routes 810, 820, 850, and 860; and the Blue Line and the Orange Line trolley.

Traffic speeds and volumes are generally favorable for bicycle travel. There are, however, challenging slopes north of B Street along this corridor. There was only one bicycle crash reported from 2002 to 2007 (at the intersection of 8<sup>th</sup> Avenue and Broadway).

This high priority project ranked 29<sup>th</sup> out of the top 40 with an average weighted prioritization score of 15.5 points.

### Proposed Improvements

- Roadside Signage (30 signs @ \$400/EA)
- Class II traffic striping (19,853 LF @ \$1/LF)
- Class II pavement markings (30 markings @ 14 SF/marking = 420 SF @ \$5/SF)

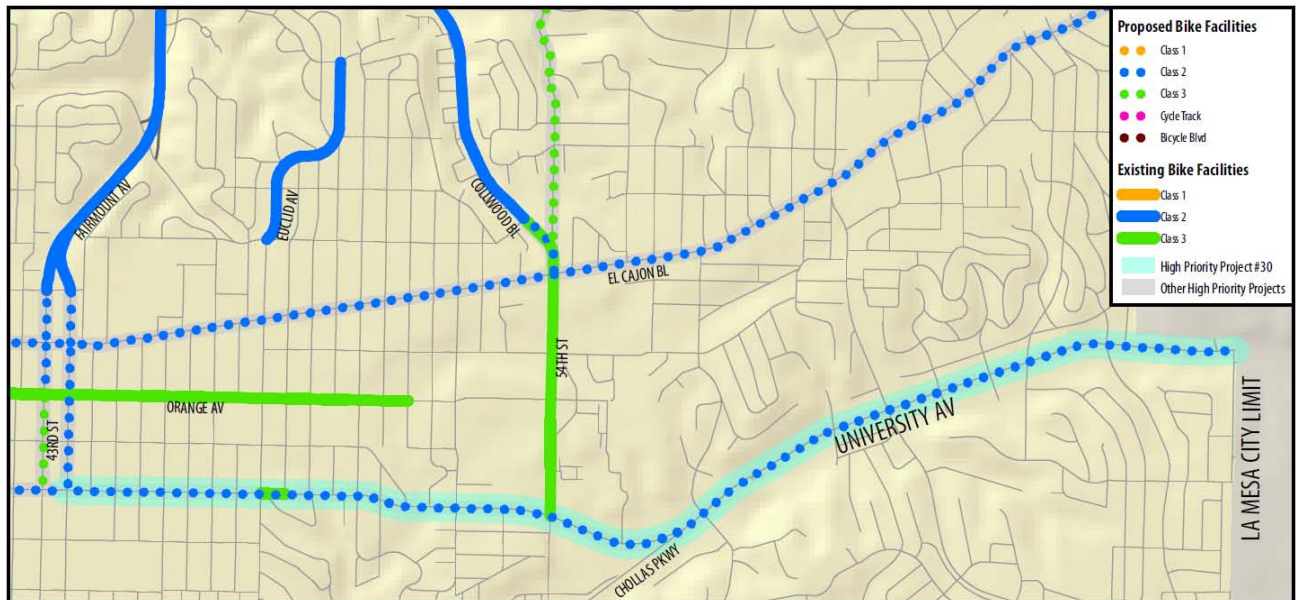
### Cost

\$52,966

### Project 29 – Cost Estimate

Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS)	\$3,395
2	Roadside Sign (EA)	\$12,000
3	Paint Traffic Stripe - Two Coat (LF)	\$19,853
4	Paint Pavement Marking - Two Coat (SF)	\$2,100
5	Mobilization (LS)	\$3,395
Subtotal		\$40,743
Contingency (30%)		\$12,223
<b>Total Construction</b>		<b>\$52,966</b>

## Project 30 – University Avenue: Fairmont Avenue to La Mesa city limit



### Project Description

This project serves travel demands between the City Heights and Eastern Area communities by providing Class II bicycle facilities along University Avenue from Fairmont Avenue to the La Mesa city limit.

This high priority project is over three miles long and connects the Mid-City residential neighborhoods along the University Avenue mixed use corridor, improving access to employment and shopping opportunities, as well as bus transit. This project corridor also provides connections to local bus Routes 7, 10, 13, 856, 936, and 955.

Bicycling issues along the proposed project include thirty-four bicycle accidents between 2002 and 2007, including six at the intersection of 54<sup>th</sup> Street and University Avenue and five at the Chollas Parkway and University Avenue intersection. Travel speeds of 35 to 40 mph are also relatively high along the project corridor, as are traffic volumes (15,700 to 27,000 ADTs). Topography is flat and amenable to bicycling.

This high priority project ranked 30<sup>th</sup> of the top 40 with an average weighted prioritization score of 15.5 points.

### Proposed Improvements

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>Remove traffic striping (33,669 LF @ \$1.65/LF)</li> <li>Remove asphalt concrete (9,327 SF @ \$7/SF)</li> <li>Remove concrete curb (5,012 LF @ \$17/LF)</li> <li>Install asphalt pavement (346 tons @ \$120/ton)</li> <li>Roadside signage (73 signs @ \$400/EA)</li> </ul> | <ul style="list-style-type: none"> <li>Class II and traffic striping (70,838 LF @ \$1/LF)</li> <li>Class II pavement markings (30 markings @ 14 SF/marking = 420 SF @ \$5/SF)</li> <li>Bicycle Detector Loop (18 @ \$1,000/EA)</li> <li>High Conflict Area Treatment (3 areas @ \$2,500/area)</li> </ul> |
|--|--|

### Cost

\$583,371

### Project 30 – Cost Estimate

Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS) 10%	\$36,771
2	Remove Traffic Stripe (LF)	\$55,554
3	Remove Asphalt Concrete (SF)	\$65,289
4	Remove Concrete Curb (LF)	\$85,204
5	Asphalt Pavement (Ton)	\$41,520
6	Roadside Sign - One Post (EA)	\$29,200
7	Paint Traffic Stripe - Two Coat (LF)	\$70,838
8	Paint Pavement Marking - Two Coat (SF)	\$2,100
9	Bicycle Detector Loop EA)	\$18,000
10	High Conflict Treatment (LS)	\$7,500
11	Mobilization (LS) 10%	\$36,771
Subtotal		\$448,747
Contingency (30%)		\$134,624
<b>Total Construction</b>		<b>\$583,371</b>



## Project 31 – Mission Boulevard: Grand Avenue to West Mission Bay Drive

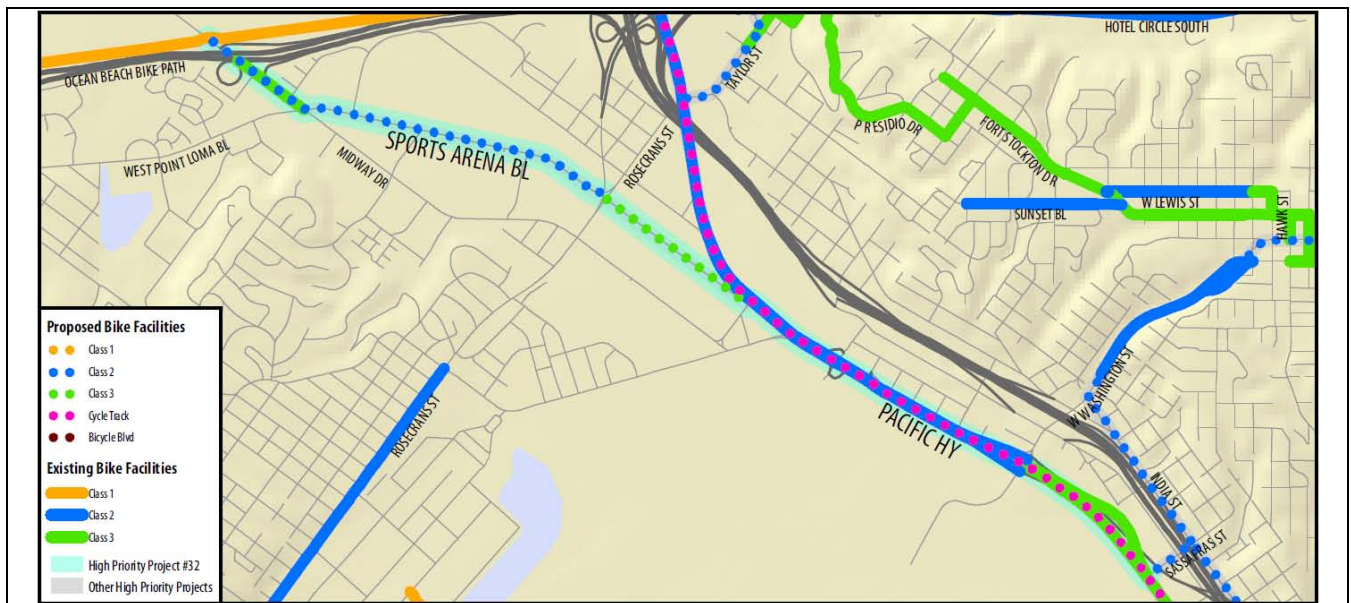
<div><p><b>Proposed Bike Facilities</b></p><ul style="list-style-type: none"><li>Class 1</li><li>Class 2</li><li>Class 3</li><li>Cycle Track</li><li>Bicycle Blvd</li></ul><p><b>Existing Bike Facilities</b></p><ul style="list-style-type: none"><li>Class 1</li><li>Class 2</li><li>Class 3</li></ul><p>High Priority Project #31</p><p>Other High Priority Projects</p></div>	<h3>Project Description</h3> <p>This project serves bicycle demands between Pacific Beach and Mission Beach by providing Class II bicycle facilities along Mission Boulevard from Grand Avenue to Pacific Beach Drive and Bicycle Boulevard facilities along Mission Boulevard from Pacific Beach Drive to West Mission Bay Drive.</p> <p>This high priority project is over a mile and a half long and connects the residential and commercial districts of Pacific Beach and Mission Beach to key land uses including recreational uses and other beach and bay destinations. This project provides connections to local bus Routes 8 and 9, and to express bus Route 30.</p> <p>Traffic speeds and volumes, as well as topography, are amenable to bicycle travel. There were a high number of bicycle crashes (29 crashes) between 2002 and 2007, including five at the intersection of Mission Boulevard and Pacific Beach Drive.</p> <p>This high priority project ranked 31<sup>st</sup> of the top 40 with an average weighted prioritization score of 15.4 points.</p>
	<h3>Proposed Improvements</h3> <ul style="list-style-type: none"><li>Remove traffic striping (33,640 LF @ \$1.65/LF)</li><li>Roadside signage (39 signs @ \$400/EA)</li><li>Class II and traffic stripe (22,500 LF @ \$1/LF)</li><li>Class II pavement markings (6 markings @ 14 SF/EA = 84 SF @ \$5/SF)</li><li>Bicycle Boulevard pavement markings (16 markings @ 38 SF/EA = 608 SF @ \$5/SF)</li><li>Bicycle Detector Loop (10 @ \$1,000/EA)</li><li>Signal modification (3 @ \$15,000/EA)</li></ul>
	<h3>Cost</h3> <p>\$237,224</p>

## Project 31 – Cost Estimate

Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS) 10%	\$15,207
2	Remove Traffic Stripe (LF)	\$55,506
3	Roadside Sign - One Post (EA)	\$15,600
4	Paint Traffic Stripe - Two Coat (LF)	\$22,500
5	Paint Pavement Marking - Two Coat (SF)	\$3,460
6	Bicycle Detector Loop (EA)	\$10,000
7	Modify Signal (EA)	\$45,000
8	Mobilization (LS) 10%	\$15,207
Subtotal		\$182,480
Contingency (30%)		\$54,744
<b>Total Construction</b>		<b>\$237,224</b>



## Project 32 – Sports Arena Boulevard: Ocean Beach Bike Path to Pacific Highway; Pacific Highway: Sports Arena Boulevard to Sassafras Street



### Project Description

This project serves bicycle demands between Mission Bay Park, the Midway District, and western Midtown by providing Class II bicycle facilities along Sports Arena Boulevard from the Ocean Beach Bike Path to Rosecrans Street, providing Class III facilities along Sports Arena Boulevard from Rosecrans Street to Pacific Highway, and upgrading the existing Class II facilities to a Cycle Track along Pacific Highway from Sports Arena Boulevard to Sassafras Street. This high priority project is over three miles long and connects the commercial neighborhoods of Midway, Ocean Beach, Peninsula, Old Town, and Uptown. It also connects existing and proposed bicycle facilities to recreational beach and bay locations and to downtown uses including major bus and trolley transit stations. This project provides connections to local bus Routes 8, 9, 10, 28, and 35, and express bus Routes 30 and 150. Bicycling issues along the proposed project include travel speeds of 35 mph and volumes between 2,300 and 38,400 ADT's along Sports Arena Boulevard, and travel speeds of 45 to 65 mph and volumes between 8,000 and 58,200 ADT's along Pacific Highway. Seventeen bicycle crashes were reported between 2002 and 2007, including six at the intersection of Sports Arena Boulevard and Rosecrans Street. The intersections at Sports Arena Boulevard/Midway Drive and Sports Arena Boulevard/Pacific Highway are also both difficult for bicyclists. Topography along this corridor is generally amenable to bicycle travel. This high priority project ranked 32nd of the top 40 with an average weighted prioritization score of 15.4 points.

### Proposed Improvements

- Remove traffic striping (45,350 LF @ \$1.65/LF)
- Remove Asphalt Concrete (101,490 SF @ \$7/SF)
- Remove Concrete Curb (3,490 LF @ \$15/LF)
- Remove Concrete Sidewalk (1,350 SF @ \$8/SF)
- Install Asphalt Pavement (4,220 tons @ \$120/ton)
- Install Concrete Curb (16,070 LF @ \$30/LF)
- Install Concrete Paving (79 CY @ \$1,000/CY)
- Roadside Signage (56 signs @ \$400/EA)
- Class II and traffic striping (42,970 LF @ \$1/LF)
- Class II pavement markings (20 markings @ 14 SF/marking = 668 SF @ \$5/SF)
- Signal Modifications (6 signals @ \$15,000/EA)
- Install Bicycle Detector Loops (23 detectors @ \$1,000/EA)
- High Conflict Intersection Treatments (23 intersections @ \$2,500)

### Cost

\$3,372,548

## Project 32 – Cost Estimate

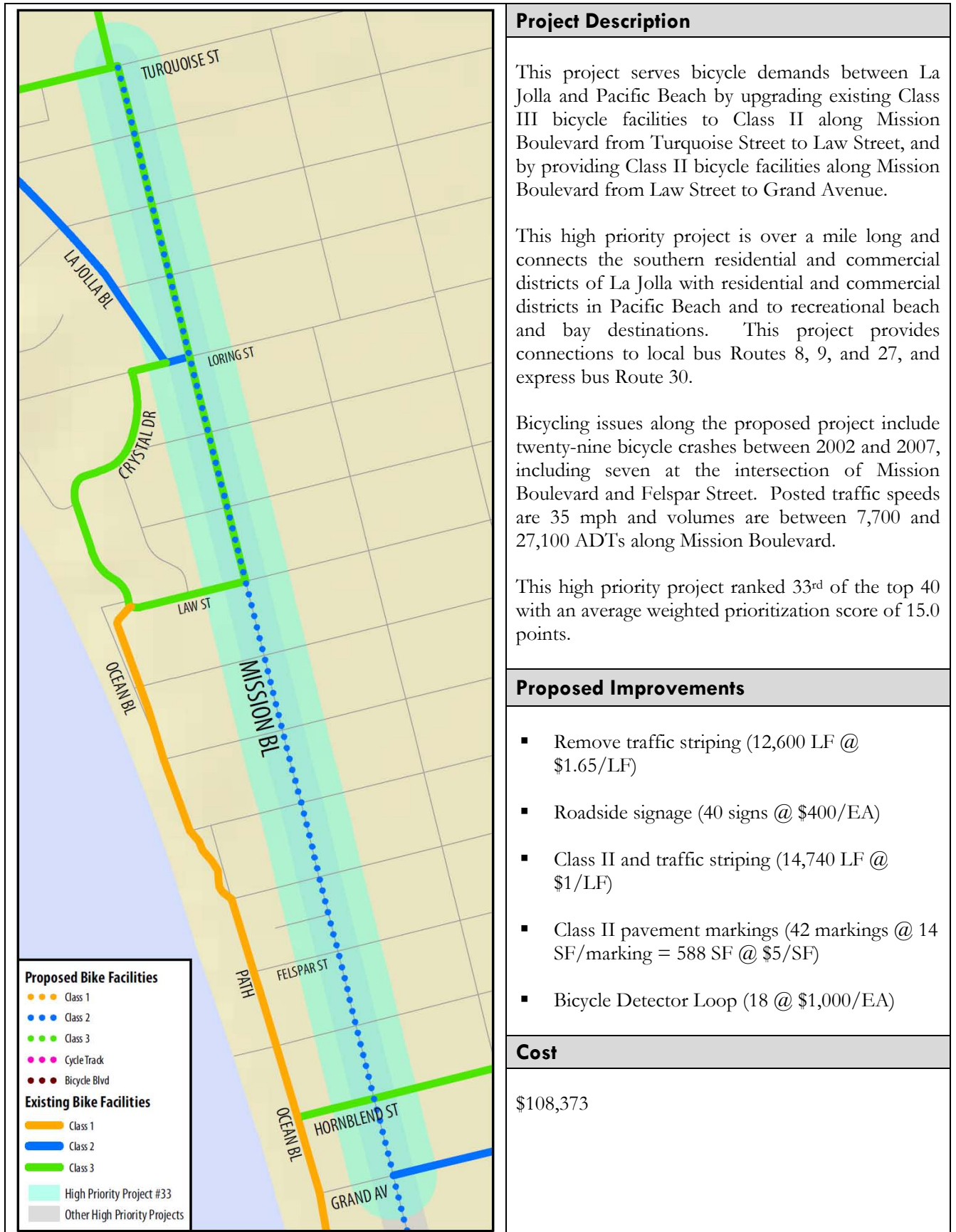
Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS) 10%	\$216,710
2	Remove Traffic Stripe (LF)	\$74,828
3	Remove Asphalt Concrete (SF)	\$710,430
4	Remove Concrete Curb (LF)	\$59,330
5	Remove Concrete Sidewalk (SF)	\$10,800
6	Asphalt Pavement (Ton)	\$506,400
7	Roadside Sign - One Post (EA)	\$22,400
8	Minor Concrete (Curb and Gutter) (LF)	\$482,100
9	Minor Concrete Sidewalk 4" (CY)	\$79,000
10	Paint Traffic Stripe - Two Coat (LF)	\$42,970
11	Paint Pavement Marking - Two Coat (SF)	\$3,340
12	Bicycle Detector Loop (EA)	\$23,000
13	Modify Signal (EA)	\$90,000
14	High Conflict Treatment (LS)	\$62,500
15	Mobilization (LS) 10%	\$210,460

Subtotal \$2,594,268

Contingency (30%) \$778,280

**Total Construction \$3,372,548**

## Project 33 – Mission Boulevard: Turquoise Street to Grand Avenue

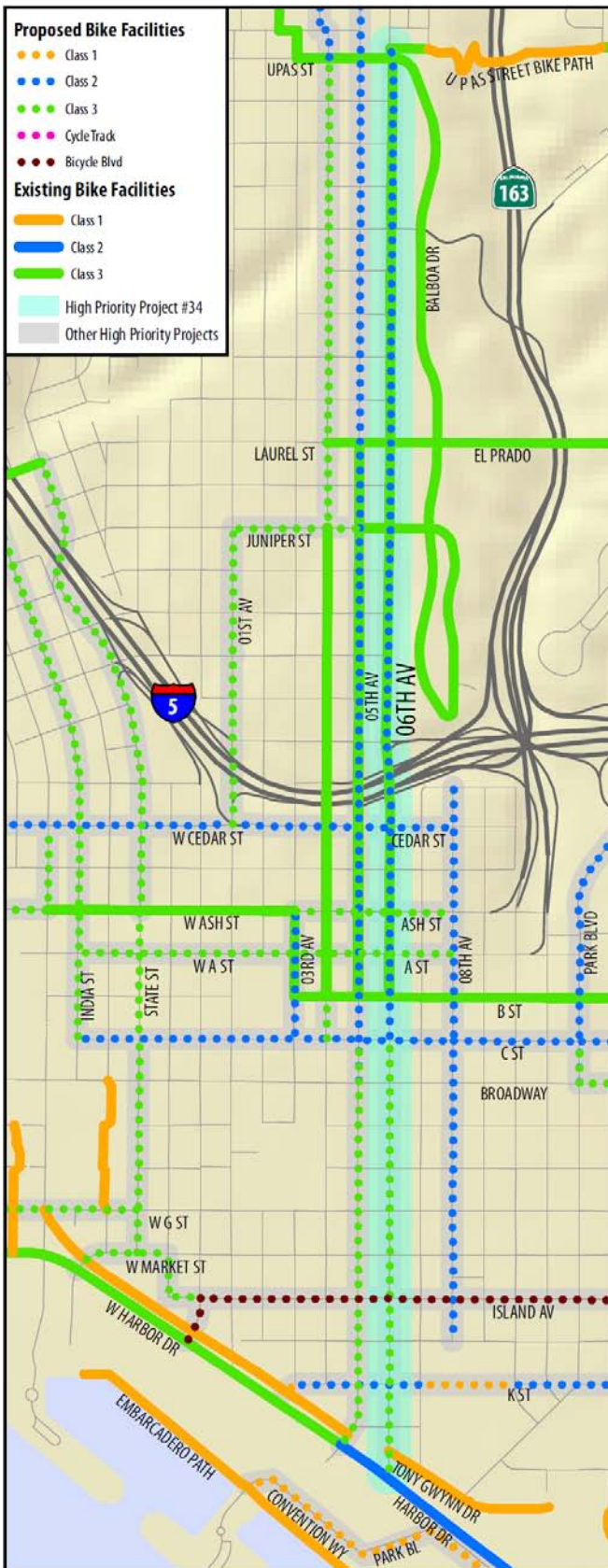


### Project 33 – Cost Estimate

Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS) 10%	\$5,447
2	Remove Traffic Stripe (LF)	\$20,790
3	Roadside Sign - One Post (EA)	\$16,000
4	Paint Traffic Stripe - Two Coat (LF)	\$14,740
5	Paint Pavement Marking - Two Coat (SF)	\$2,940
6	Bicycle Detector Loop (EA)	\$18,000
7	Mobilization (LS) 10%	\$5,447
Subtotal		\$83,364
Contingency (30%)		\$25,009
<b>Total Construction</b>		<b>\$108,373</b>



## Project 34 – 6<sup>th</sup> Avenue: Upas Street to Harbor Drive



### Project Description

This project serves bicycle demands between the Uptown neighborhoods of Hillcrest and Parkwest and the Center City neighborhoods of Little Italy, Cortez, Columbia, and Gaslamp by upgrading existing Class III bicycle facilities to Class II facilities along 6<sup>th</sup> Avenue from Upas Street to C Street and Class III facilities along 6<sup>th</sup> Avenue from C Street to Harbor Drive.

This high priority project is over two miles long and connects the residential, recreational, and commercial districts of Hillcrest, Uptown, Balboa Park, and Centre City to many downtown key land uses. The project serves local bus Routes (Routes 2, 3, 7, 11, 15, 901, 923, 929), express bus Routes (Routes 20, 30, 50, 150, 210), and premium express Routes (Routes 810, 820, 850, 860), as well as major commercial and employment centers.

Bicycle transportation issues along the project include relatively high rates of travel (35-40 mph), as well as eight bicycle crashes between 2002 and 2007, including two at the intersection of 6<sup>th</sup> Avenue and B Street. Topography and traffic volumes along the project are generally amenable to bicycle travel.

This high priority project ranked 34<sup>th</sup> of the top 40 with an average weighted prioritization score of 14.8 points.

### Proposed Improvements

- Remove traffic stripe (23,940 LF @ \$1.65/LF)
- Remove asphalt concrete (1,200 SF @ \$7/SF)
- Remove concrete pavement (1,800 SF @ \$9/SF)
- Remove concrete curb (1,200 LF @ \$17/LF)
- Install asphalt pavement (90 tons @ \$120/ton)
- Roadside signage (117 signs @ \$400/EA)
- Class II and traffic striping (45,200 LF @ \$1/LF)
- Class II pavement markings (35 markings @ 14 SF/marking = 490 SF @ \$5/SF)
- Class III pavement markings (9 markings @ 14 SF/marking = 126 SF @ \$5/SF)
- Bicycle Detector Loop (14 @ \$1,000/EA)

### Cost

\$315,225

### Project 34 – Cost Estimate

Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS) 10%	\$19,040
2	Remove Traffic Stripe (LF)	\$39,501
3	Remove Asphalt Concrete (SF)	\$8,400
4	Remove Concrete Pavement (SF)	\$16,200
5	Remove Concrete Curb (LF)	\$20,400
6	Asphalt Pavement (Ton)	\$10,800
7	Roadside Sign - One Post (EA)	\$46,800
8	Paint Traffic Stripe - Two Coat (LF)	\$45,220
9	Paint Pavement Marking - Two Coat (SF)	\$3,080
10	Bicycle Detector Loop (EA)	\$14,000
11	Mobilization (LS) 10%	\$19,040

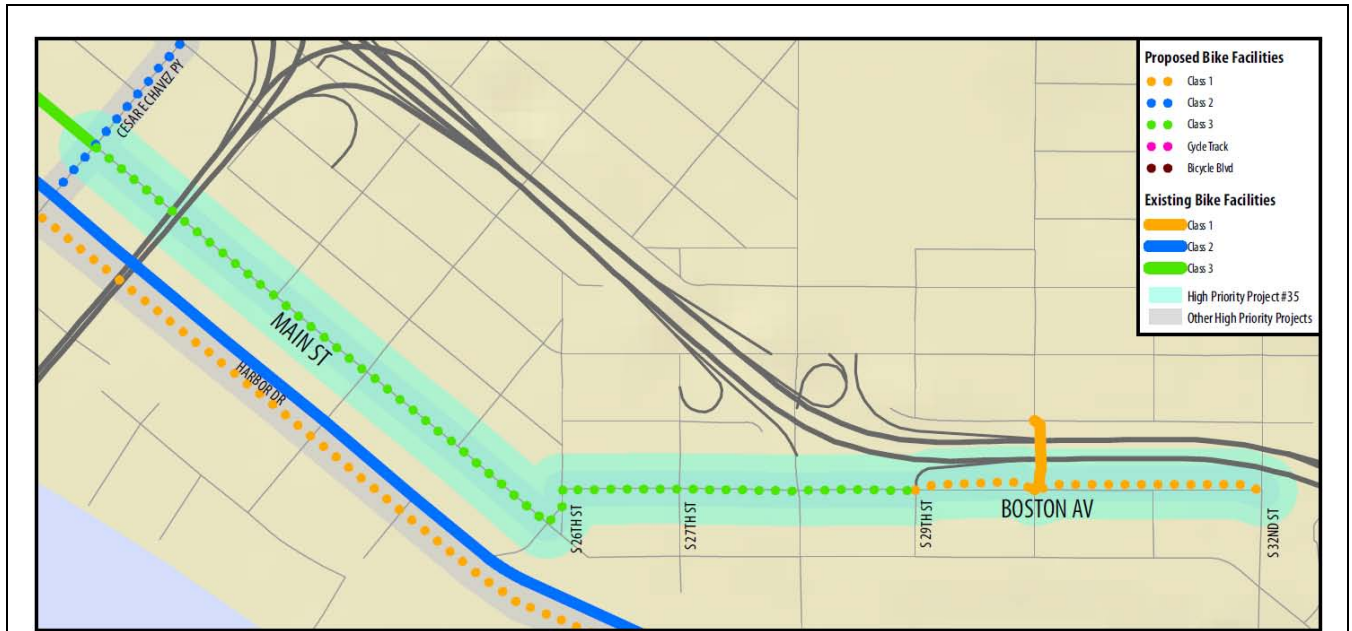
Subtotal \$242,481

Contingency (30%) \$72,744

**Total Construction \$315,225**

Parking Removed 154 spaces

**Project 35 – Main Street: Cesar E. Chavez Parkway to 26<sup>th</sup> Street;  
26<sup>th</sup> Street: Boston Avenue to Main Street;  
Boston Avenue: 26<sup>th</sup> Street to 32<sup>nd</sup> Street**



### Project Description

This project serves bicycle demands through Barrio Logan by providing Class III bicycle facilities along Main Street from Cesar E. Chavez Parkway to 26<sup>th</sup> Street, Class III bicycle facilities along 26<sup>th</sup> Street from Boston Avenue to Main Street, Class III bicycle facilities on Boston Avenue from 26<sup>th</sup> Street to 29<sup>th</sup> Street, and Class I bicycle facilities on Boston Avenue from 29<sup>th</sup> Street to 32<sup>nd</sup> Street.

This high priority project is over one mile long and connects the residential neighborhoods of southern Centre City and Barrio Logan. It also connects to several stops along local bus Routes 901 and 929.

Travel speeds and volumes along this proposed project are generally amenable to bicycle travel and there was only one reported accident between 2002 and 2007, occurring at the intersection of 28<sup>th</sup> Street and Main Street.

This high priority project ranked 35<sup>th</sup> of the top 40 with an average weighted prioritization score of 14.6 points.

### Proposed Improvements

- Install Class I asphalt pavement (594 tons @ \$120/ton)
- Roadside signage (42 signs @ \$400/EA)
- Class I centerline striping (2,006 LF @ \$1/LF)
- Class III pavement markings (31 markings @ 14 SF/EA = 434 SF @ \$5/SF)

### Cost

\$144,794



## Project 35 – Cost Estimate

Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS) 10%	\$9,226
2	Asphalt Pavement (Ton)	\$71,280
3	Roadside Sign - One Post (EA)	\$16,800
4	Paint Traffic Stripe - Two Coat (LF)	\$2,006
5	Paint Pavement Marking - Two Coat (SF)	\$2,170
6	Mobilization (LS) 10%	\$9,226
Subtotal		\$110,708
Contingency (30%)		\$33,212
<b>Total Construction</b>		<b>\$143,920</b>

## Project 36 – Morena Boulevard: Gesner Street to Tecolote Road; West Morena Boulevard: Morena Boulevard to Linda Vista Road



### Project Description

This project serves bicycle demands along the western edges of Clairemont Mesa and Linda Vista by providing Class II bicycle facilities along Morena Boulevard from Gesner Street to Tecolote Road and along West Morena Boulevard from Morena Boulevard to Linda Vista Road.

This high priority project is over two miles long and connects the residential and commercial neighborhoods of Clairemont Mesa and Linda Vista with the Linda Vista Trolley Station and commercial areas. The project also connects with several stops along local bus Route 105.

Bicycling issues along the proposed project include high travel speeds (45-50 mph) along Morena Boulevard and six bicycle crashes between 2002 and 2007, including three at the intersection of Morena Boulevard and Tecolote Road. Topography and traffic volumes along the project are both amenable to bicycle travel.

This high priority project ranked 36<sup>th</sup> of the top 40 with an average weighted prioritization score of 14.3 points.

### Proposed Improvements

- Remove traffic striping (43,780 LF @ \$1.65/LF)
- Roadside signage (89 signs @ \$400/EA)
- Class II and traffic stripe (49,180 LF @ \$1/LF)
- Class II pavement markings (63 markings @ 14 SF/EA = 882 SF @ \$5/SF)
- Bicycle Detector Loop (24 @ \$1,000/EA)

### Cost

\$289,267

## Project 36 – Cost Estimate

Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS) 10%	\$18,543
2	Remove Traffic Stripe (LF)	\$72,237
3	Roadside Sign - One Post (EA)	\$35,600
4	Paint Traffic Stripe - Two Coat (LF)	\$49,180
5	Paint Pavement Marking - Two Coat (SF)	\$4,410
6	Bicycle Detector Loop	\$24,000
7	Mobilization (LS) 10%	\$18,543

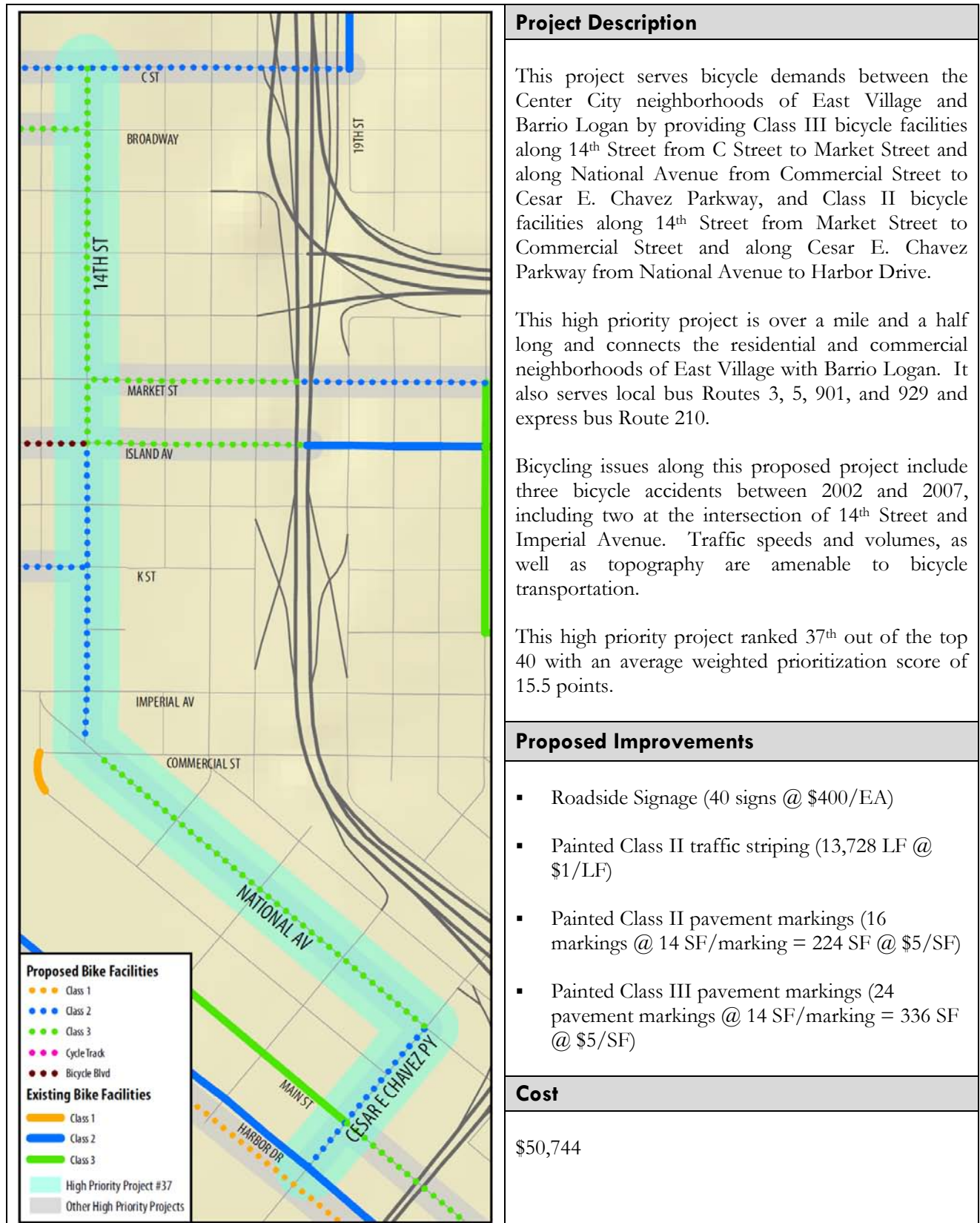
Subtotal	\$222,513
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Contingency (30%)	\$66,754
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<b>Total Construction</b>	<b>\$289,267</b>
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Remove Parking	35 spaces
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**Project 37 – 14<sup>th</sup> Street: C Street to Commercial Street;  
National Avenue: Commercial Street to Cesar E. Chavez Parkway; and  
Cesar E. Chavez Parkway: National Avenue to Harbor Drive**



### Project 37 – Cost Estimate

Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS)	\$3,253
2	Roadside Sign (EA)	\$16,000
3	Paint Traffic Stripe - Two Coat (LF)	\$13,728
4	Paint Pavement Marking - Two Coat (SF)	\$2,800
5	Mobilization (LS)	\$3,253
Subtotal		\$39,034
Contingency (30%)		\$11,710
<b>Total Construction</b>		<b>\$50,744</b>

## Project 38 – Mission Valley San Diego River Bike Path



### Project Description

This project serves intra-community bicycle demands in Mission Valley by providing Class I bicycle facilities along the San Diego River Bike Path from Hotel Circle Place to the western terminus of the Fashion Valley Bike Path (at Fashion Valley Road), Class II facilities along Fashion Valley Road from Friars Road to Hotel Circle North, along Hotel Circle North from Fashion Valley Road to Hotel Circle South, and by upgrading the existing Class III bicycle facilities to Class I facilities along Camino de la Reina from Hotel Circle North to the western terminus of the existing Class I South San Diego River Bike Path. This project also proposes closing a short gap in the existing Class II facility along Hotel Circle South near the intersection with Hotel Circle North.

This high priority project is approximately two and a half miles long and provides a much needed continuation of the Class I South San Diego River Bike Path and the Fashion Valley Bike Path west to the Ocean Beach Bike Path. This project provides connections to local bus Routes 6, 14, 25, 41, and 928; express bus Routes 20 and 120; premium express Routes 810, 820, 850, and 860; and the Green Line trolley.

Bicycling issues along this project corridor include traffic speeds of 25 mph along Camino de la Reina and 35 mph along Fashion Valley Road and Hotel Circle South, and traffic volumes from 9,100 to 18,700 ADTs along Camino de la Reina, approximately 13,300 ADTs along Fashion Valley Road, and from 17,000 to 23,400 ADTs along Hotel Circle North. This segment reports a total of two bicycle crashes from 2002 – 2007, and has relatively flat topography.

This high priority project ranked 35<sup>th</sup> of the top 40 with an average weighted prioritization score of 14.6 points.

### Proposed Improvements

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>Remove traffic striping (9,000 LF @ \$1.65/LF)</li> <li>Install Class II asphalt pavement (6,180 SF @ \$50/SF)</li> <li>Install Class I asphalt pavement (71,385 SF @ \$50/SF)</li> <li>Roadside signage (25 signs @ \$400/EA)</li> <li>Class II and traffic striping (21,200 LF @ \$1/LF)</li> </ul> | <ul style="list-style-type: none"> <li>Class I painted centerline (8,923 LF @ \$1/LF)</li> <li>Class II pavement markings (24 markings @ 14 SF/marking = 336 SF @ \$5/SF)</li> <li>Lighting (20 street lights @ \$3,000/EA)</li> <li>Bicycle Detector Loop (8 @ \$1,000/EA)</li> </ul> |
|--|--|

### Cost

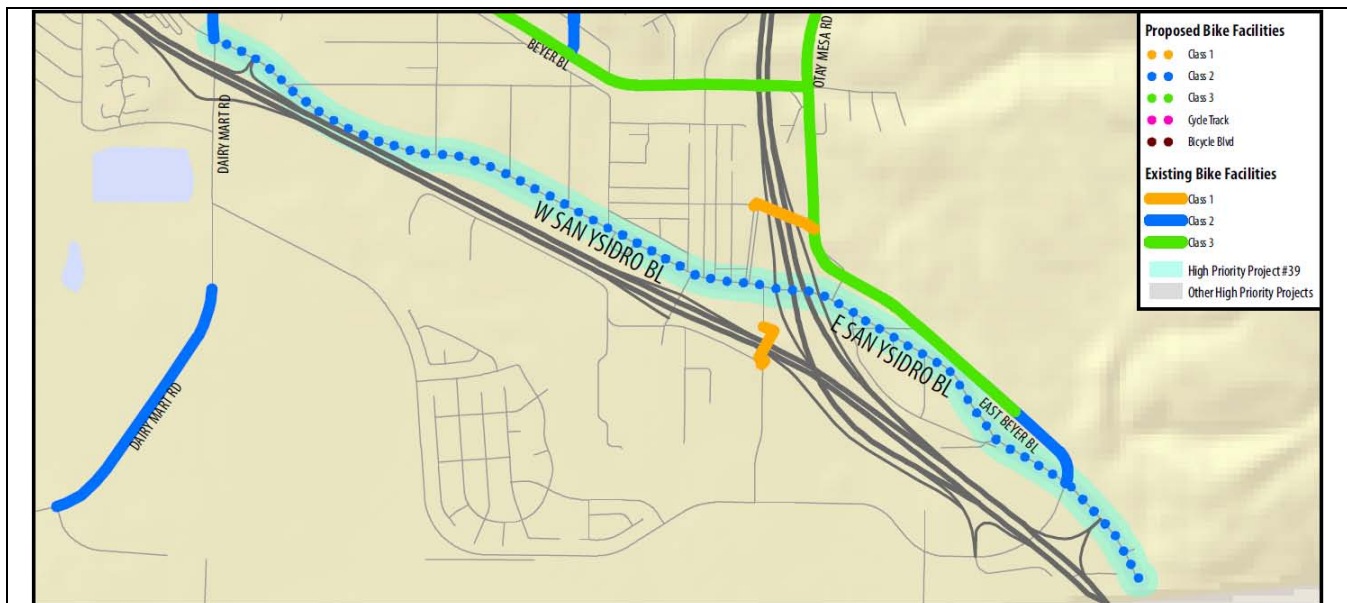
\$6,244,528

### Project 38 – Cost Estimate

Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS) 10%	\$400,290
2	Remove Traffic Stripe (LF)	\$14,850
3	Asphalt Pavement (SF)	\$3,878,250
4	Roadside Sign - One Post (EA)	\$10,000
5	Paint Traffic Stripe - Two Coat (LF)	\$30,123
6	Paint Pavement Marking - Two Coat (SF)	\$1,680
7	Lighting (City Street) (LS)	\$60,000
8	Bicycle Detector Loop EA)	\$8,000
9	Mobilization (LS) 10%	\$400,290
Subtotal		\$4,803,483
Contingency (30%)		\$1,441,045
<b>Total Construction</b>		<b>\$6,244,528</b>



## Project 39 –San Ysidro Boulevard: Dairy Mart Road to the southern terminus of San Ysidro Boulevard



### Project Description

This project serves bicycle demands through central San Ysidro to the International Border Crossing by providing Class II bicycle facilities along San Ysidro Boulevard from Dairy Mart Road to the southern terminus of San Ysidro Boulevard.

This high priority project is over two miles long and connects the residential and commercial districts of San Ysidro with existing and proposed bicycle lanes, key land uses including local bus Routes 929 and 932 and the Blue Line trolley, and the international border with Mexico.

Bicycling issues along the proposed project include seven bicycle crashes between 2002 and 2007. Traffic volumes and speeds, as well as area topography are amenable to bicycle travel. However, there is a difficult freeway crossing at the I-5 Ramps.

This high priority project ranked 39<sup>th</sup> of the top 40 with an average weighted prioritization score of 13.1 points.

### Proposed Improvements

- Remove traffic striping (35,120 LF @ \$1.65/LF)
- Roadside signage (48 signs @ \$400/EA)
- Class II and traffic striping (37,900 LF @ \$1/LF)
- Class II pavement markings (48 markings @ 14 SF/EA = 672 SF @ \$5/SF)
- Bicycle detector loop (24 @ \$1,000/EA)

### Cost

\$222,157

### Project 39 – Cost Estimate

Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS) 10%	\$14,241
2	Remove Traffic Stripe (LF)	\$57,948
3	Roadside Sign - One Post (EA)	\$19,200
4	Paint Traffic Stripe - Two Coat (LF)	\$37,900
5	Paint Pavement Marking - Two Coat (SF)	\$3,360
6	Bicycle Detector Loop	\$24,000
7	Mobilization (LS) 10%	\$14,241

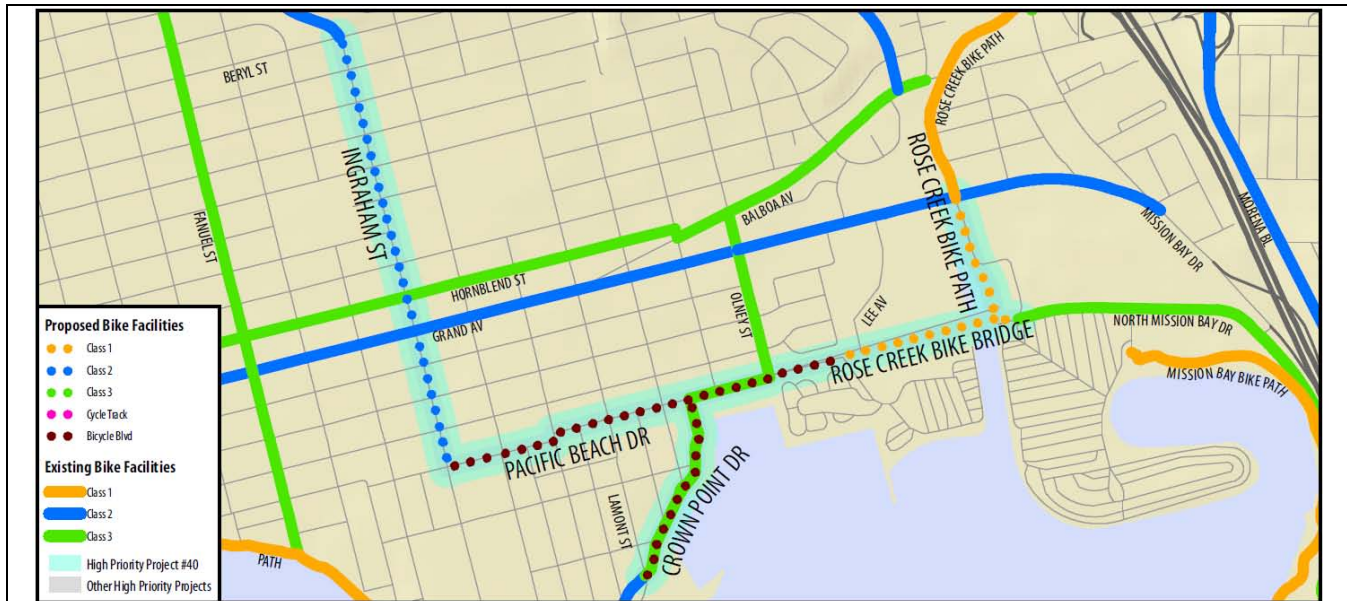
Subtotal \$170,890

Contingency (30%) \$51,267

**Total Construction \$222,157**

Remove Parking 18 spaces

## Project 40 – Pacific Beach to Rose Creek



### Project Description

This project serves bicycle demands between Pacific Beach and Mission Bay Park by providing Class II bicycle facilities along Ingraham Street from Beryl Street to Pacific Beach Drive, Bicycle Boulevard facilities along Pacific Beach Drive from Ingraham Street to the eastern terminus of Pacific Beach Drive and along Crown Point Drive from Pacific Beach Drive to Lamont Street. In addition, the project recommends Class I bicycle facilities, including over the Rose Creek Bike Bridge, from the eastern terminus of Pacific Beach Drive to the northern terminus of North Mission Bay Drive, and upgrading the currently substandard Class I facility along Rose Creek Bike Path from Grand Avenue to the northern terminus of North Mission Bay Drive.

This high priority project is over two and a half miles long and connects the residential, commercial, and recreational districts of southeastern Pacific Beach and northern Mission Bay Park to key recreational and tourism land uses including the beach and the bay. This project follows local bus routes 8, 9, and 27 and connects to express bus Route 30.

Bicycling issues along the proposed project include relatively high travel speeds (35-40 mph) along Ingraham Street and Pacific Beach Drive, as well as 23 reported bicycle crashes between 2002 and 2007, including four at the intersection of Ingraham Street and Thomas Street. Topography, as well as roadway traffic volumes, are amenable to bicycle travel along the remainder of this project.

This high priority project ranked 40<sup>th</sup> of the top 40 with an average weighted prioritization score of 12.6 points.

### Proposed Improvements

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>Remove traffic striping (15,780 LF @ \$1.65/LF)</li> <li>Install Class I asphalt pavement (25,766 SF @ \$50/SF)</li> <li>Roadside signage (70 signs @ \$400/EA)</li> <li>Class I centerline striping (3,221 LF @ \$1/LF)</li> </ul> | <ul style="list-style-type: none"> <li>Class II and traffic striping (27,900 LF @ \$1/LF)</li> <li>Class II pavement markings (82 markings @ 14 SF/EA = 1,148 SF @ \$5/SF)</li> <li>Bicycle Boulevard pavement markings (18 markings @ 14 SF/EA = 252 SF @ \$5/SF)</li> <li>Bicycle Detector Loop (12 @ \$1,000/EA)</li> </ul> |
|--|--|

### Cost

\$2,171,798

## Project 40 – Cost Estimate

Item No.	Item	Preliminary Cost Estimate
1	Traffic Control System (LS) 10%	\$139,218
2	Remove Traffic Stripe (LF)	\$26,037
3	Asphalt Pavement (SF)	\$1,288,300
4	Roadside Sign - One Post (EA)	\$28,000
5	Paint Traffic Stripe - Two Coat (LF)	\$31,121
6	Paint Pavement Marking - Two Coat (SF)	\$6,720
7	Bicycle Detector Loop (EA)	\$12,000
8	Mobilization (LS) 10%	\$139,218
Subtotal		\$1,670,614
Contingency (30%)		\$501,184
<b>Total Construction</b>		<b>\$2,171,798</b>
Remove Parking		129 spaces

## Cost Estimates for Maintenance and Operations

The total annual maintenance cost of the bicycle network, as shown in **Table 8.4**, is estimated at approximately \$4.4 million per year when fully implemented. Bicycle facility maintenance costs are based on per mile estimates, which cover labor, supplies, and amortized equipment costs for weekly trash removal, monthly sweeping, and bi-annual resurfacing and repair patrols. Other maintenance costs include restriping bike lane lines, sweeping debris, and tuning signals for bicycle sensitivity.

**Table 8.4: Annual Operations and Maintenance Cost Estimates  
for Recommended Bikeway Network**

Facility/Program	Unit Cost <sup>1</sup>	Description	Miles	Cost	Notes
<b>Class I Maintenance</b> (including Cycle Track)	\$17,000	Annual Cost per Mile	178.0	\$3,026,000	Lighting and debris and vegetation overgrowth removal
<b>Class II Maintenance</b> (including facility classified as Class II or Class III)	\$2,000	Annual Cost per Mile	547.1	\$1,094,200	Repainting lane stripes and stencils, sign replacement as needed
<b>Class III Maintenance</b> (including Bicycle Boulevard)	\$1,000	Annual Cost per Mile	319.0	\$319,000	Sign and shared use stencil replacement as needed
		<b>Avg. Cost/Year</b>	<b>1044.1</b>	<b>\$4,439,200</b>	

Source: Alta Planning + Design, February 2010

Notes:

1. Unit costs based on Alta Planning + Design experience with similar bikeway systems, and "Trails for the 21st Century: Planning, Design and Management Manual for Multi-Use Trails," published by the Rails-to-Trails Conservancy, 2001.

As part of the normal roadway maintenance program, extra emphasis should be put on keeping the bike lanes and roadway shoulders clear of debris and keeping vegetation overgrowth from blocking visibility or creeping into the roadway. The other typical maintenance costs for the bikeway network include the maintenance of signage, striping and stencils.

## Funding Sources

Potential funding sources for bicycle projects, programs and plans can be found at all levels of government. This section covers federal, state, regional and local sources of bicycle funding, as well as some non-traditional funding sources that may be used for bicycle projects. All the projects are recommended to be implemented over the next two to twenty years, or as funding is available. The more expensive projects may take longer to implement. In addition, many funding sources are highly competitive, and therefore it is impossible to determine exactly which projects will be funded by which funding sources.

## *Federal Funding*

The primary federal source of surface transportation funding, including bicycle and pedestrian facilities, is SAFETEA-LU, the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users. SAFETEA-LU is the fourth iteration of the transportation vision established by Congress in 1991 with the Intermodal Surface Transportation Efficiency Act (ISTEA) and renewed in 1998 and 2003 through the Transportation Equity Act for the 21st Century (TEA-21) and the Safe, Accountable, Flexible, and Efficient Transportation Equity Act of 2003 (SAFETEA). Also known as the federal transportation bill, the \$286.5 billion SAFETEA-LU bill passed in 2005 and authorizes Federal surface transportation programs for the five-year period between 2005 and 2009. As of September 30, 2009, SAFETEA-LU has expired, though the bill's programs have been kept alive at a 30% reduction in funding by Congress through a series of continuing resolutions.

Administration of SAFETEA-LU funding occurs through the State (Caltrans and the State Resources Agency) and through regional planning agencies. Most, but not all, of these funding programs are oriented toward utilitarian transportation versus recreation, with an emphasis on reducing auto trips and providing inter-modal connections. SAFETEA-LU programs require a local match of 11.47%.

Specific funding programs under SAFETEA-LU include, but are not limited to:

- Congestion Mitigation and Air Quality (CMAQ)
- Recreational Trails Program
- Safe Routes to School Program
- Transportation, Community and System Preservation Program

These and other federal funding sources are summarized in the following sections.

### **Congestion Mitigation and Air Quality Improvement Program**

Congestion Mitigation and Air Quality Improvement funds are programmed by the Federal transportation bill for projects that are likely to contribute to the attainment of a national ambient air quality standard, and congestion mitigation. These funds can be used for a broad variety of bicycle and pedestrian projects, particularly those that are developed primarily for transportation purposes. The funds can be used either for construction of bicycle transportation facilities and pedestrian walkways or for non-construction projects related to safe bicycle and pedestrian use (maps, brochures, etc.). The projects must be tied to a plan adopted by the State and SANDAG.

### **Recreational Trails Program**

The Recreational Trails Program of SAFETEA-LU provides funds to states to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. Examples of trail uses include bicycling, hiking, in-line skating, and equestrian use. In California, the funds are administered by the California Department of Parks and Recreation. Recreational Trails Program funds may be used for:

- Maintenance and restoration of existing trails;
- Purchase and lease of trail construction and maintenance equipment;
- Construction of new trails; including unpaved trails;
- Acquisition of easements or property for trails;
- State administrative costs related to this program (limited to seven percent of a State's funds); and
- Operation of educational programs to promote safety and environmental protection related to trails (limited to five percent of a State's funds).

\$4.6 million dollars was available to California jurisdictions of through the Recreational Trails Program in 2009. More information is available at [www.fhwa.dot.gov/environment/rectrails/index.htm](http://www.fhwa.dot.gov/environment/rectrails/index.htm).

### **Safe Routes to School (SRTS) Program**

Authorized under Section 1404 of SAFETEA-LU, the Safe Routes to School (SRTS) Program came into effect in August, 2005. Consistent with other federal-aid programs, each State Department of Transportation (DOT) is held responsible for the development and implementation of grant funds made available to the states through this new program throughout the life of SAFETEA-LU. Some expected outcomes of the program include:

- Increased bicycle, pedestrian, and traffic safety around schools;
- More children walking and bicycling to and from schools;
- Decreased traffic congestion around schools;
- Reduced childhood obesity;
- Improved air quality, community safety and security, and community involvement;
- Improved partnerships among schools, local agencies, parents, community groups, and nonprofit organizations.

A minimum of 70 percent of each year's apportionment will be made available for infrastructure projects with up to 30 percent for non-infrastructure projects.

### **SRTS INFRASTRUCTURE PROJECTS**

Infrastructure projects are engineering projects or capital improvements that will substantially improve safety and the ability of students to walk and bicycle to school. They typically involve the planning, design, and construction of facilities within a two mile radius from a grade school or middle school. The maximum funding cap for an infrastructure project is \$1 million. Caltrans does not set minimum caps. The project cost estimate may include eligible direct and indirect costs.

Eligible projects may include but are not limited to:



- New bicycle trails and paths, bicycle racks, bicycle lane striping and widening, new sidewalks, widening of sidewalks, sidewalk gap closures, curbs, gutters, and curb ramps. Also includes new pedestrian trails, paths, and pedestrian over and under crossings, roundabouts, bulbouts, speed bumps, raised intersections, median refuges, narrowed traffic lanes, lane reductions, full or half-street closures, and other speed reduction techniques.
- Included in the category of traffic control devices are: new or upgraded traffic signals, crosswalks, pavement markings, traffic signs, traffic stripes, in-roadway crosswalk lights, flashing beacons, bicycle-sensitive signal actuation devices, pedestrian countdown signals, vehicle speed feedback signs, pedestrian activated upgrades, and all other pedestrian and bicycle-related traffic control devices.

Infrastructure projects should directly support increased safety and convenience for children in K-8 (including children with disabilities) to walk and bicycle to school.

#### **SRTS NON-INFRASTRUCTURE PROJECTS**

Non-infrastructure projects are education/encouragement/enforcement activities that are intended to change community behavior, attitudes, and social norms to make it safer for children in Grades K-8 to walk and bicycle to school. Non-infrastructure projects should increase the likelihood of programs becoming institutionalized once in place. Deliverables from a non-infrastructure project must be clearly stated in the application and tangible samples must be attached to the final invoice or Progress Report; i.e., sample training materials or promotional brochures. The funding cap for a non-infrastructure project is \$500,000. Multi-year funding allows the applicant to staff up and deliver their project over the course of four (4) years, thereby reducing overhead and increasing project sustainability.

#### **Transportation, Community, and System Preservation Program (TCSP)**

Implementation grants under the TCSP Program are intended to provide financial resources to states, metropolitan planning organizations, local governments and tribal governments to enable them to carry out activities that address transportation efficiency while meeting community preservation and environmental goals. Examples of such policies or programs include: spending policies that direct funds to high-growth regions of the country; urban growth boundaries to guide metropolitan expansion; green corridors" programs that provide access to major highway corridors for areas targeted for efficient and compact development.

#### **Land and Water Conservation Fund**

The Land and Water Conservation Fund allocates money to state and local governments to acquire new land for recreational purposes, including bicycle paths and support facilities such as bike racks. The Fund is administered by the National Parks Service and the California Department of Parks and Recreation and has been reauthorized until 2015.

Cities, counties and districts authorized to acquire, develop, operate and maintain park and recreation facilities are eligible to apply. Applicants must fund the entire project, and will be reimbursed for 50 percent of costs. Property acquired or developed under the program must

be retained in perpetuity for public recreational use. The grant process for local agencies is competitive, and 60 percent of grants are reserved for Southern California.

In 2009, approximately \$1.25 million was allocated to fund recommended projects in California.

### **Rivers, Trails and Conservation Assistance Program**

The Rivers, Trails and Conservation Assistance Program (RTCA) is a National Parks Service program which provides technical assistance via direct staff involvement, to establish and restore greenways, rivers, trails, watersheds and open space. The RTCA program provides only for planning assistance—there are no implementation monies available. Projects are prioritized for assistance based upon criteria which include conserving significant community resources, fostering cooperation between agencies, serving a large number of users, encouraging public involvement in planning and implementation and focusing on lasting accomplishments.

### **Transportation Enhancement (TE) Activities**

Transportation Enhancement (TE) Activities are a subset of federal Surface Transportation Program funds whose aim is to help expand travel choice and enhance the transportation experience. Included in the list of activities eligible for funding are the provision of pedestrian and bicycle facilities and the provision of pedestrian and bicycle safety and educational activities. California's annual allocation of TE funds through the end of the SAFETEA-LU bill was \$74.5 million. In 2007, about \$6.7 million dollars of federal TE funds were spent in the San Diego region, mostly on pedestrian and bicycle projects.

### **Regional Surface Transportation Program**

The Regional Surface Transportation Program (RSTP) is a block grant program established by the State of California utilizing federal funding made available for surface transportation projects. Though most of this funding gets earmarked for highway and transit projects, pedestrian and bicycle projects are still eligible to receive funds from this source. In California, \$225 million (76%) of RSTP funds are allocated annually to California's 11 largest urbanized areas with populations greater than 200,000 people. Under the RSTP, the San Diego Association of Governments (SANDAG) is authorized to prioritize and approve projects that receive RSTP funds in the San Diego region. Agencies can transfer funding from other federal transportation sources to the RSTP program in order to gain more flexibility in the way the monies are allocated.

## *State Funding Programs*

This section summarizes the primary state bicycle project and planning funding sources.

### **Bicycle Transportation Account**

The State of California Bicycle Transportation Account (BTA) is an annual statewide discretionary program that is available through the Caltrans Bicycle Facilities Unit for funding bicycle projects. Available as grants to local jurisdictions, the emphasis is on projects that benefit bicycling for commuting purposes. As of 2009, the BTA makes \$7.2 million available each year. The local match is a minimum of 10% of the total project cost.

BTA projects are intended to improve safety and convenience for bicycle commuters, and can include, but are not limited to, any of the following:

- New bikeways serving major transportation corridors
- New bikeways removing travel barriers to potential bicycle commuters
- Secure bicycle parking at employment centers, park-and-ride lots, rail and transit terminals, and ferry docks and landings
- Bicycle-carrying facilities on public transit vehicles
- Installation of traffic control devices to improve the safety and efficiency of bicycle travel
- Elimination of hazardous conditions on existing bikeways
- Planning
- Improvement and maintenance of bikeways

Eligible project activities include: project planning, preliminary engineering, final design, right-of-way acquisition, and construction and/or rehabilitation.

### **Environmental Enhancement and Mitigation Program (EEMP)**

Environmental Enhancement and Mitigation Program (EEMP) Funds are allocated to projects that offset environmental impacts of modified or new public transportation facilities including streets, mass transit guideways, park-n-ride facilities, transit stations, tree planting to equalize the effects of vehicular emissions, and the acquisition or development of roadside recreational facilities, such as trails. State gasoline tax monies fund the EEMP, which annually allocates \$10 million for mitigation projects.

### **Office of Traffic Safety (OTS) Grant**

Office of Traffic Safety Grants (OTS) fund safety programs and equipment. Bicycle and Pedestrian Safety is a specifically identified priority. This category of grants includes enforcement and education programs, which can encompass a wide range of activities, including bicycle helmet distribution, design and printing of billboards and bus posters, other

public information materials, development of safety components as part of physical education curriculum, or police safety demonstrations through school visitations.

The grant cycle typically begins with a request for proposals in October, which are due the following January. In 2006, OTS awarded \$103 million to 290 agencies.

### **Recreational Trails Program (RTP)**

The Recreational Trails Program provides funds to states to develop and maintain recreational trails and trail-related facilities for both non-motorized and motorized recreational trail uses. Examples of trail uses include hiking, bicycling, in-line skating, equestrian use, and other non-motorized as well as motorized uses.

Recreational Trails Program funds may be used for:

- Maintenance and restoration of existing trails;
- Development and rehabilitation of trailside and trailhead facilities and trail linkages;
- Purchase and lease of trail construction and maintenance equipment;
- Construction of new trails (with restrictions for new trails on federal lands);
- Acquisition of easements or property for trails;
- State administrative costs related to this program (limited to seven percent of a State's funds); and
- Operation of educational programs to promote safety and environmental protection related to trails (limited to five percent of a State's funds).

### **Safe Routes to School (SR2S) Program**

Established in 1999, the State-legislated Safe Routes to School (SR2S) program came into effect with the passage of AB 1475. In 2001, SB 10 was enacted which extended the program for three additional years. In 2004, SB 1087 was enacted to extend the program three more years. And in 2007, AB 57 was enacted to extend the program indefinitely. Seven (7) cycles of the SR2S program have been completed. The list of awarded projects is typically announced in the fall.

The goals of the program are to reduce injuries and fatalities to school children and to encourage increased walking and bicycling among students. The program achieves these goals by constructing facilities that enhance safety for pedestrians and bicyclists, primarily students in grades K-12 who walk or bicycle to school. By enhancing the safety of the pathways, trails, sidewalks, and crossings, the likelihood of attracting and encouraging other students to walk and bicycle increases.

The SR2S program is primarily a construction program. Projects funded by the program are intended to improve the safety of students who walk or bicycle to school. Construction improvements must be made on public property. Improvements can be made on public school grounds providing the cost is incidental to the overall cost of the project. The

program typically provides approximately \$25 million annually statewide. The maximum reimbursement percentage for any SR2S project is ninety percent. The maximum amount of SR2S funds that will be allocated to any single project is \$900,000.

Eligible project elements include bicycle facilities, traffic control devices and traffic calming measures. Up to 10% of funding provided for an individual project can be used for Outreach, Education, Encouragement, and/or Enforcement activities. Regarding funding projections, the 2008 cycle is anticipated to provide \$48.5 million in funding. A letter from the Safe Routes to School National Partnership to the California Air Resources Board recognized that awards were part of “the volatile state budget process.”

This California SR2S program should not be confused with the Federal Highway Administration’s (FHWA) Safe Routes to School (SRTS) program authorized under SAFETEA-LU. Although both programs have similar goals and objectives, their funding source, local funding match requirements and other program requirements are different (see following section).

### **TDA Article III (SB 821)**

Transportation Development Act Article 3 funds are distributed by the State of California and administered at the county level, which can be used by cities for planning and construction of bicycle and pedestrian facilities. SANDAG administers this program and establishes its policies within the San Diego region.

These funds are allocated annually on a per capita basis to both cities and the County of San Diego. Local agencies may either draw down these funds or place them on reserve. SANDAG allocates TDA funds in conjunction with the TransNet program. The TDA/TransNet program is described in the next section.

TDA Article 3 funds may be used for the following activities related to the planning and construction of bicycle and pedestrian facilities:

- Engineering expenses leading to construction.
- Right-of-way acquisition.
- Construction and reconstruction.
- Retrofitting existing bicycle and pedestrian facilities, including installation of signage, to comply with the Americans with Disabilities Act (ADA).
- Route improvements such as signal controls for bicyclists, bicycle loop detectors, rubberized rail crossings and bicycle-friendly drainage grates.
- Purchase and installation of bicycle facilities such as secure bicycle parking, benches, drinking fountains, changing rooms, rest rooms and showers which are adjacent to bicycle trails, employment centers, park-and-ride lots, and/or transit terminals and are accessible to the general public.

## *Regional Funding Sources*

Regional bicycle grant programs come from a variety of sources, including SAFETEA-LU, the State budget, vehicle registration fees, bridge tolls and local sales tax. Most regional funds are allocated by regional agencies such as SANDAG.

### **TDA and TransNet Call for Pedestrian and Bicycle Projects**

In addition to TDA revenue which comes from state sales tax, the San Diego region levies an additional ½ cent local sales tax to fund transportation projects under the TransNet program. In 2004, TransNet was extended for 40 years by voters. Each year, the SANDAG Board of Directors allocates funds under the Transportation Development Act (TDA) and the TransNet local sales tax program to support non-motorized transportation projects in the San Diego region. For FY 2010, approximately \$7.7 million was available for allocation. These funds serve as part of the Regional Housing Needs Incentive Program. The *Implementation Guidelines for SANDAG Regional Housing Needs Assessment Memorandum* (Board Policy No. 33) sets forth guidelines for incentives related to the Regional Housing Needs Assessment (RHNA) for the 2005-2010 Housing Element cycle. Eligibility for the TDA/TransNet bicycle and pedestrian funds depend upon compliance with Board Policy No. 033, TDA Project Eligibility, and TransNet Project Eligibility.

In addition to the eligibility requirements, if applicable, certain SANDAG Claim Requirements must be met. The application must be completed and received in early February.

### **TransNet Smart Growth Incentive Program**

The TransNet Smart Growth Incentive Program (SGIP) funds transportation and transportation related infrastructure improvements and planning efforts that support smart growth development. This program is a longer-term version of SANDAG's Pilot Smart Growth Incentive Program, which uses funding incentives to encourage coordinated regional planning to bring transit service, housing, and employment together in smart growth development. The pilot program distributed \$22.5 million in grants to 16 smart growth projects in the San Diego region in 2005.

The program funds two grant types: capital projects and planning projects. The goal of SGIP is to fund public infrastructure projects and planning activities that will support compact, mixed-use development focused around public transit, and will provide more housing and transportation choices. The projects funded under this program will serve as models for how good infrastructure and planning can make smart growth an asset to communities in a variety of settings. Grants range from \$200,000 to \$2,000,000 for capital projects and \$50,000 to \$400,000 for planning projects.

Project Screening Criteria include:

- Local Commitment/Authorization
- Funding Commitment
- Funding Eligibility

Project Evaluation Criteria include:

- Project Readiness (Level of Project Development)
- Smart Growth Area Land Use Characteristics (Intensity of Development; Land Use and Transportation Characteristics of Project Area; Urban Design Characteristics of Project Area; Related Land Development Projects; Affordable Housing)
- Quality of Proposed Project (Bicycle Access Improvements; Pedestrian Access Improvements; Transit Facility Improvements; Streetscape Enhancements; Traffic Calming Features; Parking Improvements)
- Matching Funds
- Low Income Household Bonus Points

## *Local Funding*

### **New Construction**

Future road widening and construction projects are one means of providing bike lanes and sidewalks. To ensure that roadway construction projects provide these facilities where needed, appropriate and feasible, it is important that an effective review process is in place so that new roads meet the standards and guidelines presented in this Plan.

### **Impact Fees**

Another potential local source of funding is developer impact fees, typically tied to trip generation rates and traffic impacts produced by a proposed project. A developer may reduce the number of trips (and hence impacts and cost) by paying for on- and off-site bikeway improvements, which will encourage residents to bicycle rather than drive. In-lieu parking fees may be used to help construct new or improved bicycle parking. Establishing a clear nexus or connection between the impact fee and the project's impacts is critical in avoiding a potential lawsuit.

### **Mello Roos**

Bike paths, lanes, and pedestrian facilities can be funded as part of a local assessment or benefit district. Defining the boundaries of the benefit district may be difficult unless the facility is part of a larger parks and recreation or public infrastructure program with broad community benefits and support.

### **Other**

Local sales taxes, fees, and permits may be implemented, requiring a local election. Parking meter revenues may be used according to local ordinance. Volunteer programs may substantially reduce the cost of implementing some of the proposed bikeways. Using groups such as the California Conservation Corp (who offer low cost assistance) can be effective at reducing project costs. Local schools or community groups may use the bikeway or pedestrian project as a project for the year, possibly working with a local designer or



engineer. Work parties may be formed to help clear the right of way where needed. A local construction company may donate or discount services. A challenge grant program with local businesses may be a good source of local funding, where corporations ‘adopt’ a bikeway and help construct and maintain the facility.

Other opportunities for implementation will appear over time, which may be used to implement the system.

